Tuesday, April 12, 2022

HALLGARTEN & COMPANY

Coverage Update

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Alphamin Resources

(TSX: AFM, OTC:AFMJF, JSE:APH)

Strategy: LONG

Price (CAD)	$1.17			
12-Month Target Price (CAD)	$2.00			
Upside to Target	71%			
High-low (12 mth)	$0.55 - $1.21			
Market Cap (CAD mn)	1,492			
Shares O/S (millions)	**1,275**			
Fully Diluted (millions)	**1,294**			
	FY21	**FY22e**	**FY23e**	**FY24e**
Consensus EPS		$0.143	n/a	n/a
Hallgarten EPS (CAD)		$0.128	$0.119	$0.226
Actual EPS (CAD)	0.05			
P/E	24.6	9.1	9.8	5.2
Dividend per share (TTM)	**3 cps**	**5-6cps**	**5-6cps**	**10-12cps**

Tuesday 12th of April 2022

Alphamin Resources

Tin Price Surge Feeds the Cash Geyser

- + The Tin price continues to trade at the highest levels in half a century due to ongoing weak supply and strong demand fundamentals
- + Margins are exceptionally high at current Tin prices over $40,000 per tonne and cash is flooding to the company's bottom line creating a virtuous circle of cash generation
- + Net cash position of US$129.5mn, after payment of a $30mn dividend
- + The company has published two new resources on Mpama South during March, one a Maiden resource and the second a quantum larger, making it potentially the second-highest grade tin mine in the world after Mpama North
- + The new resources underpin a PEA on Mpama South that shall boost Tin output at the combined projects by around 60% in 2024 by adding over 7,000 tpa to production
- + A production decision has been made for Mpama South with the likely 20-month build culminating in the extra production kicking in from the start of 2024
- + The dividends should escalate over coming years, acting as a further attraction to institutional and other value investors
- + Mpama North powers on with the resource constantly being renewed at depth and outwards
- ✘ Logistically the location in central Africa means long supply lines to the ports that have become subject to the vagaries of the extreme weather in the area
- ✘ The company is still trading at a significant discount to where it would be if it was in a jurisdiction other than the DRC and listed in another market besides the TSX-V

Majoring on All Fronts

It was relatively easy, once production started, for Bisie to claim the laurels as largest listed producer outside China. This took it to 4% of global tin production immediately. With very few new (or old) projects joining the fray the likely onset of production at Mpama South over the next 24 months could take Alphamin up to 6-7% of global production. Further to this the original mine also gets to claim credit as the highest-grade producer globally.

In this note we look at the progress so far at Alphamin. The company now has two full fiscal years of production behind it and earnings surging, in what is the most propitious tin market in decades. With the publication of two new resources for Mpama South plus a PEA on that project, the company stands set to increase production by around 60% by 2024.

In this review we shall look at the two new resources, the PEA, recent earnings (both FY and 1Q22) and the earnings outlook.

Uniqueness Comes into Focus

The Bisie mine moving into production in 2019 was a key new addition to the world Tin feedstocks market, adding capacity of producing 12,000 tpa of contained Tin to a market that has seen erosion of traditional mines and sources over the last decade.

After a price dive during the worst of the Virus's effects on markets, the Tin price soared higher on severe warehouse shortages that prompted panic buying by users caught short of supplies. As recently as last year, Roskill was expecting a tight outlook for tin feedstocks over the coming decade, although they thought the market would be sufficiently supplied if key projects ramped-up as forecast. However many of these were dependent upon a tin price north of US$20,000 per tonne. Despite prices recently going nearly as high as $50,000 per tonne it is clear that there was not as much pending production as many had expected and there has been no concomitant onset of significant production other than that offered by Alphamin.

The Bisie Mine

The company's main asset is the Bisie Tin mine in the DRC. It is located roughly 180 km west-northwest of the regional centre of Goma and about 210km due West from the Ugandan border. There is novel mineralisation at Bisie, which includes high-grade Tin, Copper, Zinc, Lead and Rare Earths.

Bisie consists of the Mpama North (currently being mined) and the highly prospective Mpama South located 750 m south of the operating mine. The company's 84.14% subsidiary, Alphamin Bisie Mining SA holds 100% ownership over three exploration permits which cover 1,470 km^2 of prospective ground in the North Kivu Province.

Exploration – Mpama South to the Fore

Alphamin commenced drilling for an initial 6,000-metre diamond core drilling program at its Mpama South prospect in December 2020. The drilling program was one of three phases designed to delineate a maiden Mineral Resource at Mpama South and this was published in March of 2022. Henceforth Alphamin will do step-out and infill drilling to prove the extent of the deposit.

Between 2012 and 2013, Alphamin drilled 19 drill holes for 3,364 metres to determine the extent and nature of the mineralization at Mpama South. Three of these are shown in the cross-section at the right. Two distinct mineralized zones were intercepted, an upper zone showing well-developed lead, zinc and silver mineralization, and a lower zone rich in tin and copper.

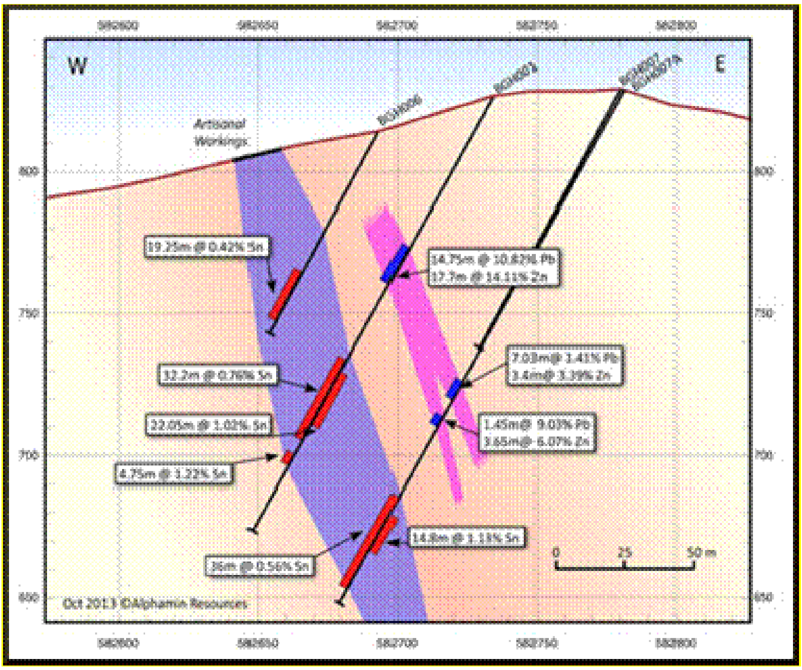
Work at Mpama South

A drilling program at Mpama South completed in 2016 recorded notable cassiterite intercepts in similar alteration styles and of similar high grades to Mpama North, including apparent widths of:

- BGH011: 32.8 m at 2.46% Sn (including 18.75 m at 3.91% Sn)
- BGH003: 2.5 m at 5.76% Sn

The company commenced its most recent drilling at Mpama South in December 2020 with a three-phased 16,800m 70-hole diamond drilling exploration campaign till August 2021.

In mid-March 2021 the company reported progress on the Mpama South drilling program with the most relevant results being that the Main zone mineralization intercepted at Mpama South, based on a visual inspection and interpretation, was regarded by the technical team as comparable with the mineralization being mined at the Mpama North mine. A new parallel mineralization zone was discovered in the footwall of the Main zone at Mpama South.



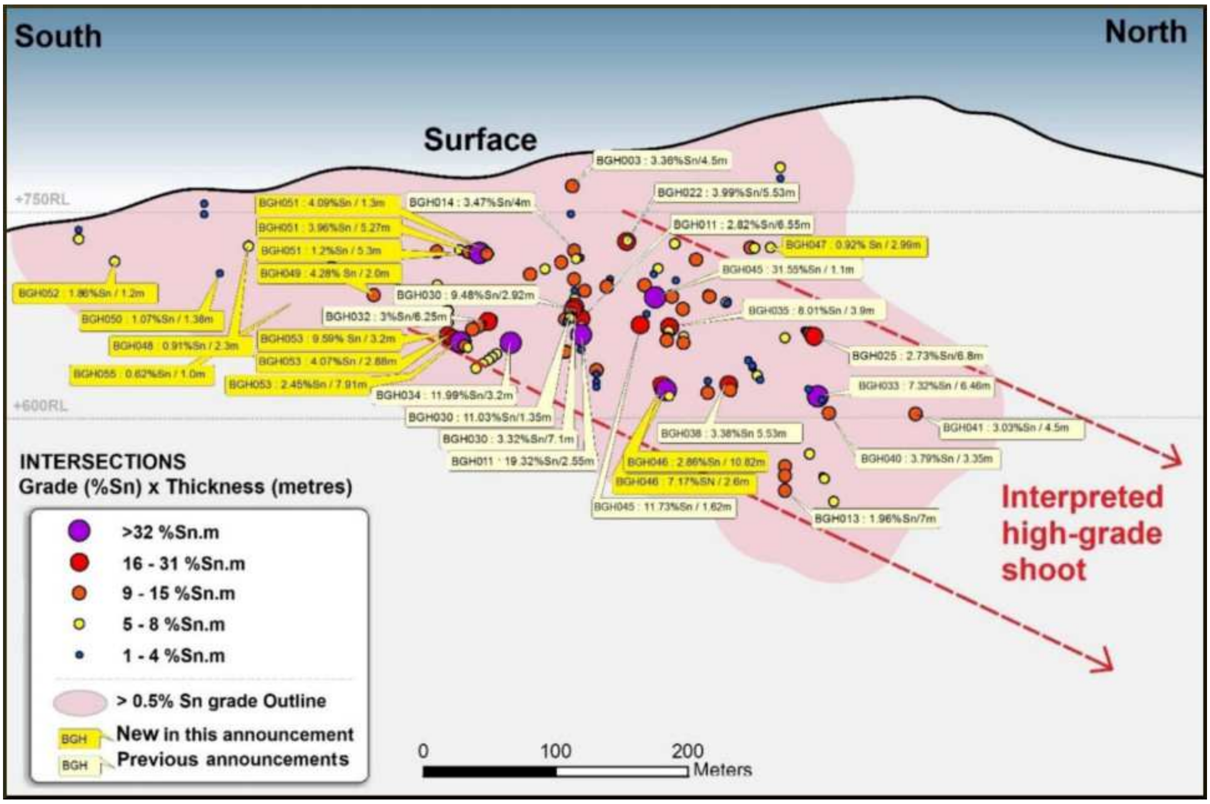
Additionally, in 1Q21, the company undertook geochemistry works with 9,750 soil samples on 130 lines. Some 40 line-kms were sampled with ~1,300 and two teams at work.

The first seven drill holes from the current drilling campaign were sampled and assayed by the company's on-site laboratory. Results confirmed the visual interpretation of high-grade tin intercepts over wide zones.

This work was undertaken with two rigs.

Selected significant intercepts from the most recently received batches of drillhole assays are listed below as apparent widths:

- BGH095: 22.7 metres @ 3.12% Sn from 391.6 metres, including 7.7 metres @ 4.73% Sn from 391.6 metres and 6.1 metres @ 4.94% Sn from 405.9 metres:
- BGH088: 16.0 metres @ 2.89% Sn from 297.7 metres
- BGH094: 12.5 metres @ 2.48 % Sn from 371.9 metres
- BGH101: 21.2 metres @ 1.34% Sn from 387.4 metres, including 6.1 metres @ 3.18% Sn from 402.7 metres



The New Resource

On the 7th of March, 2022, a maiden Mineral Resource was released. Following completion of the Phase 3 diamond drilling campaign in September 2021 and receipt of assays, a Mineral Resource Estimation for the Mpama South project was commenced in December 2021. This MRE included results from 79 drill holes totaling 23,109m.

The maiden Mineral Resource, completed by J.C. Witley (BSc Hons, MSc (Eng.)) of the MSA Group (an independent consulting company) who is a Fellow of the Geological Society of South Africa. The maiden resource was estimated at 0.83mn tonnes @ 2.58% Sn for 21,500 tonnes contained tin in the Indicated category and 1.95mn tonnes @ 2.52% Sn for 49,100 tonnes contained tin in the Inferred category. This resource was released to expedite the publication of the PEA, despite the fact that the company had to hand further drill results that would further enhance the results.

Mpama South Resource (early March)

Category	Ore mn tonnes	Sn %	Contained Tin
Indicated	0.83	2.58	21,520
Inferred	1.95	2.52	49,120

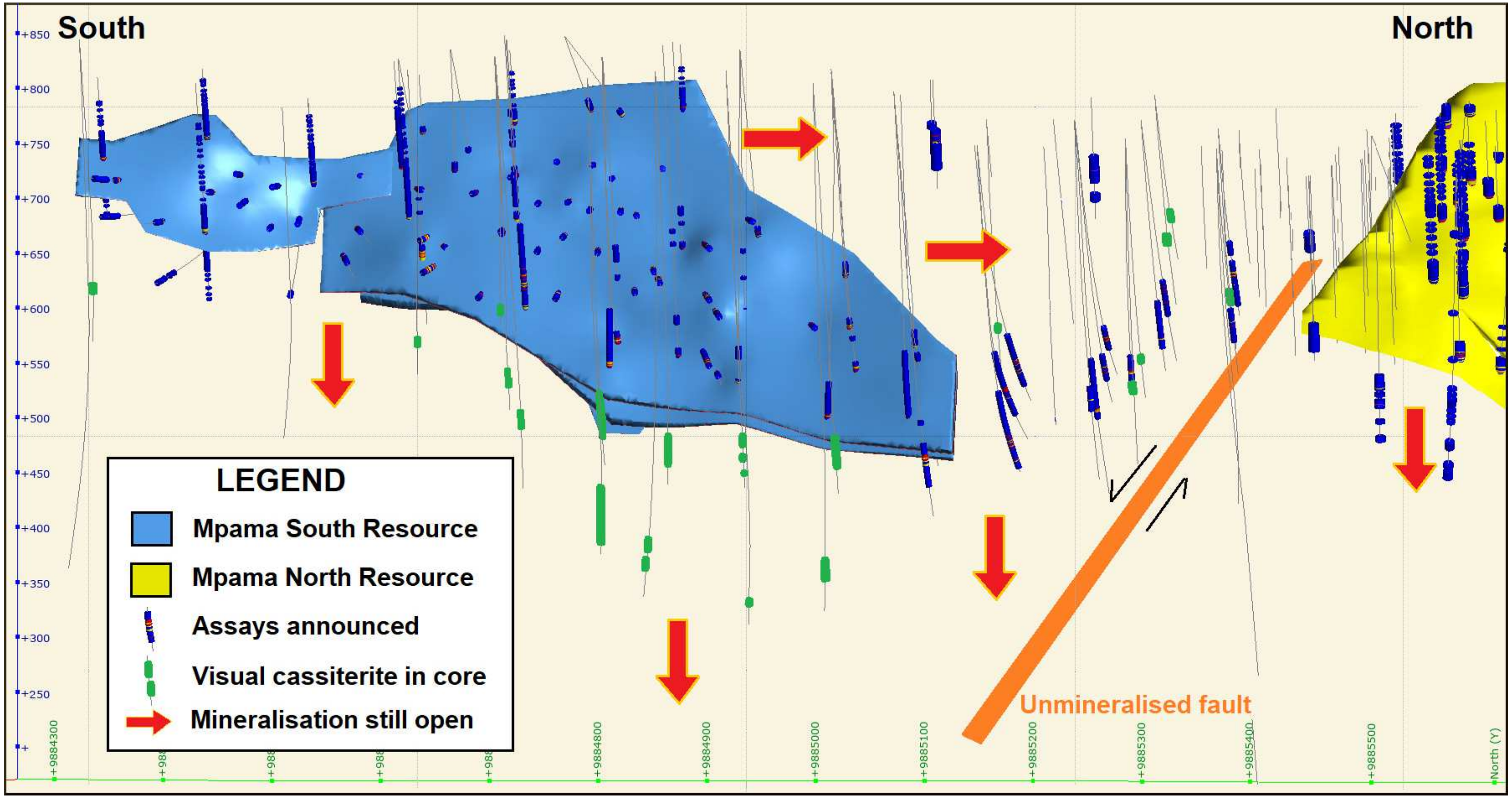
In the company's estimation this makes Mpama South the second highest-grade publicly-disclosed resource globally and one of the largest by contained tin. The company was being rather coy there because it didn't mention that Mpama North is the deposit that takes the prize for highest grade deposit in the world.

Then later in March, the company released an expanded resource. Following the receipt of assays for an additional 22 drill holes, therefore the MRE now includes results from 102 drill holes.

Mpama South Resource (late March)

Category	Ore mn tonnes	Sn %	Contained Tin
Indicated	0.85	2.55	21,500
Inferred	3.42	2.45	83,700

However, around a further 30 drill holes (over ~10,000 metres) beyond and within the limits of the updated MRE at Mpama South have been completed. Subsequent updates to the resource at Mpama South are expected to be released throughout the remainder of the drilling phases in 2022 and beyond as assays are received.


South
North
+850
+800
+750
+700
+650
+600
+550
+500
+450
+400
+350
+300
+250
LEGEND
Mpama South Resource
Mpama North Resource
Assays announced
Visual cassiterite in core
Mineralisation still open
Unmineralised fault
+9884300
+9884800
+9884900
+9885000
+9885100
+9885200
+9885300
+9885400
+9885500
North (Y)

As can be noted in the cross section on the preceding page, there is a 500-metre space between Mpama North and South however, as drilling has proceeded in this gap the unmineralised area (around the fault) has been whittled down to a mere 30-40 metres.

The Mpama South PEA

On the 7th of March, 2022, along with the maiden Mineral Resource, a preliminary economic assessment for the development of the mine at Mpama South was released. The main metrics from the study were:

Mpama South - PEA Key Metrics

	Unit	Value
Avg. Annualised ROM mined and processed	tonnes	468,000
Avg. Annualised ROM grade	% Sn	2.21%
Processing recovery	%	70%
Avg. Annualised Contained tin produced	tonnes	7232
Avg. Annualised AISC per tonne contained tin sold (At US$40,000/t tin price)	$/t tin	$15,188
Avg. Annualised AISC per tonne contained tin sold (At US$30,000/t tin price)	$/t tin	$14,326
Avg. Annualised EBITDA (At US$40,000/t tin price) (At US$40,000/t tin price)	US$	$187.31mn
Avg. Annualised EBITDA (At US$30,000/t tin price) (At US$30,000/t tin price)	US$	$121.22mn
Development Capital Estimate	US$	$115.97mn

The new development could be seen as a satellite mine or a standalone mine. Time will tell. As it stands the plan is to develop an entirely new replication of the Mpama North set-up but several hundred metres to the south. The rationale for this is that it is not expected that there will be a reduction in throughput of Mpama North's production for at least ten years so trying to build out a bigger central processing site would be disruptive of current production and not necessarily a saving of money on CapEx.

The new processing plant (geared to around 7,000-7,500 tpa of contained tin production) will have the same throughput as Mpama North, despite, the lower eventual annual output because of the grade differential. The tailings storage facility will be shared (for the moment).

The PEA demonstrated the potential viability of expanding production by developing Mpama South by leveraging the adjacent Mpama North Mine services (power, water, site access, underground infrastructure and personnel) coupled with the construction of a dedicated second lookalike processing plant and mine portal.

The two mines will likely be connected as it has become clearer that the two mineralized areas are almost touching and thus drifting from one development to the other makes sense to exploit the evolving resource in the "gap".

CapEx - Mpama South - PEA

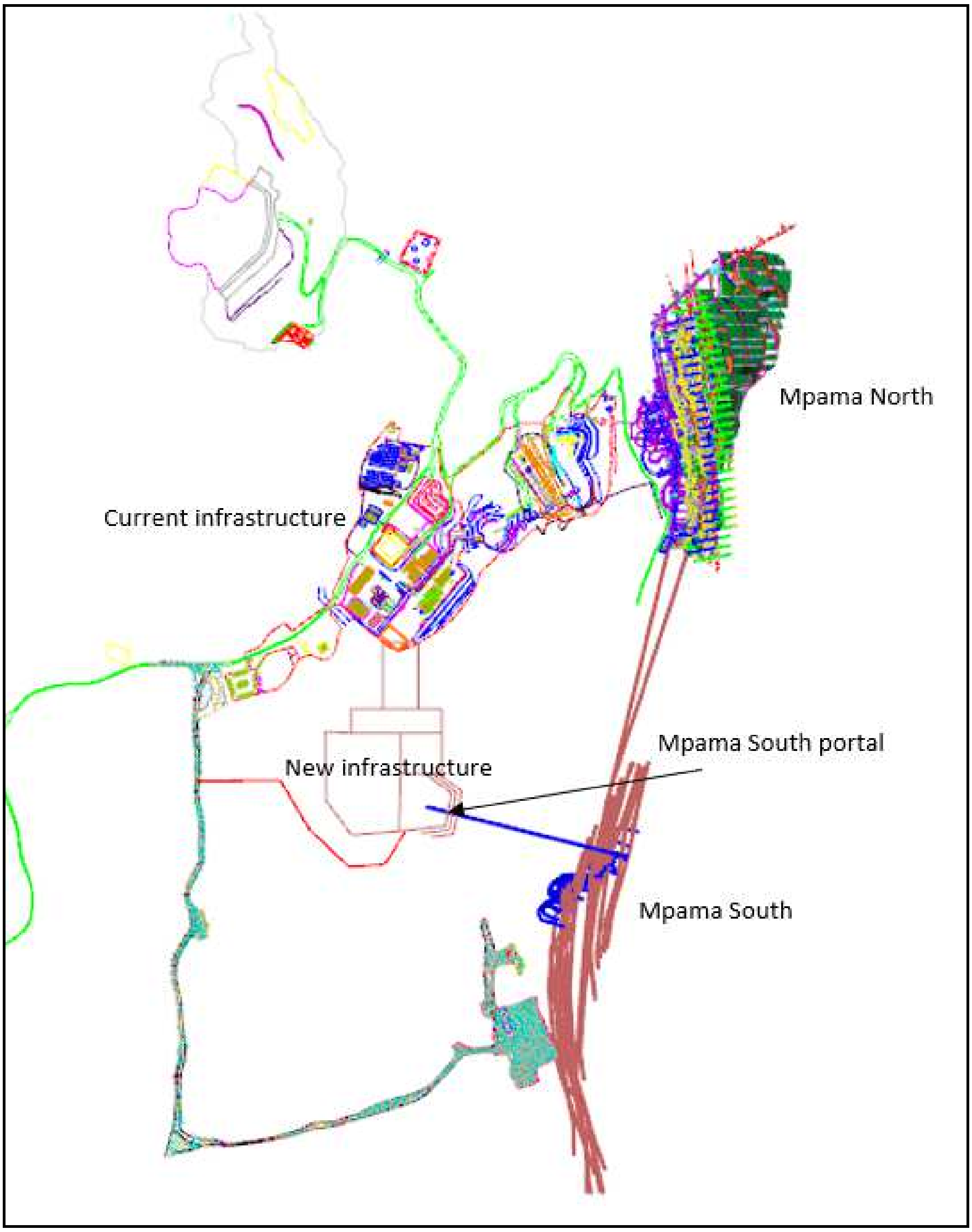
	US$ mn
Underground development (including equipment)	$36
Processing plant, earthworks, ROM pad	$80
	$116

The estimated capital development cost is around US$116mn, down from an earlier expectation of around $150mn. This spend provides a projected short payback period of around one year in relation to annual EBITDA potential.

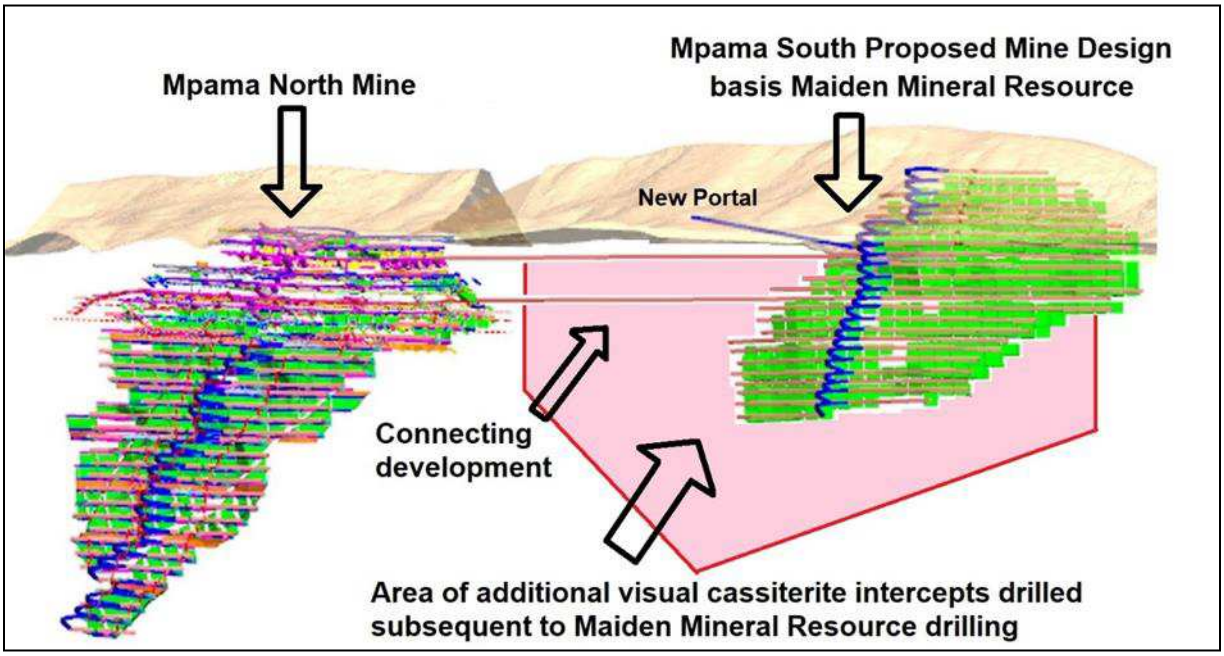
The PEA's stance is strong on risk mitigation through known implementation, with similar mining method, mining fleet and processing route as currently applied at the Mpama North mine. Potentially the new mine could have been accessed via the existing mine but for the reasons of minimizing disruption, but also enhancing ventilation (via having two portals) the replication approach was taken.

The PEA estimated a 20-month construction timeline.

On the following page can be seen the envisioned minesite(s) with a new portal to Mpama South's orebody and the siting of the processing facilities.



The company confirmed in its late March release that it had decided to advance with the mine build on the back of the expanded resource and the attractive outcome of the PEA. Two of the key drivers for this were, firstly, the opportunity to take advantage of the current and forecast supply deficit in the tin market and secondly, Alphamin's ability to self-fund its development from current and short-term forecasted cash reserves. Therefore, if the build starts in June or even earlier, the onset of production from Mpama South should be at the start of FY24.



This should have exponential upward effects upon revenues as we shall discuss further on.

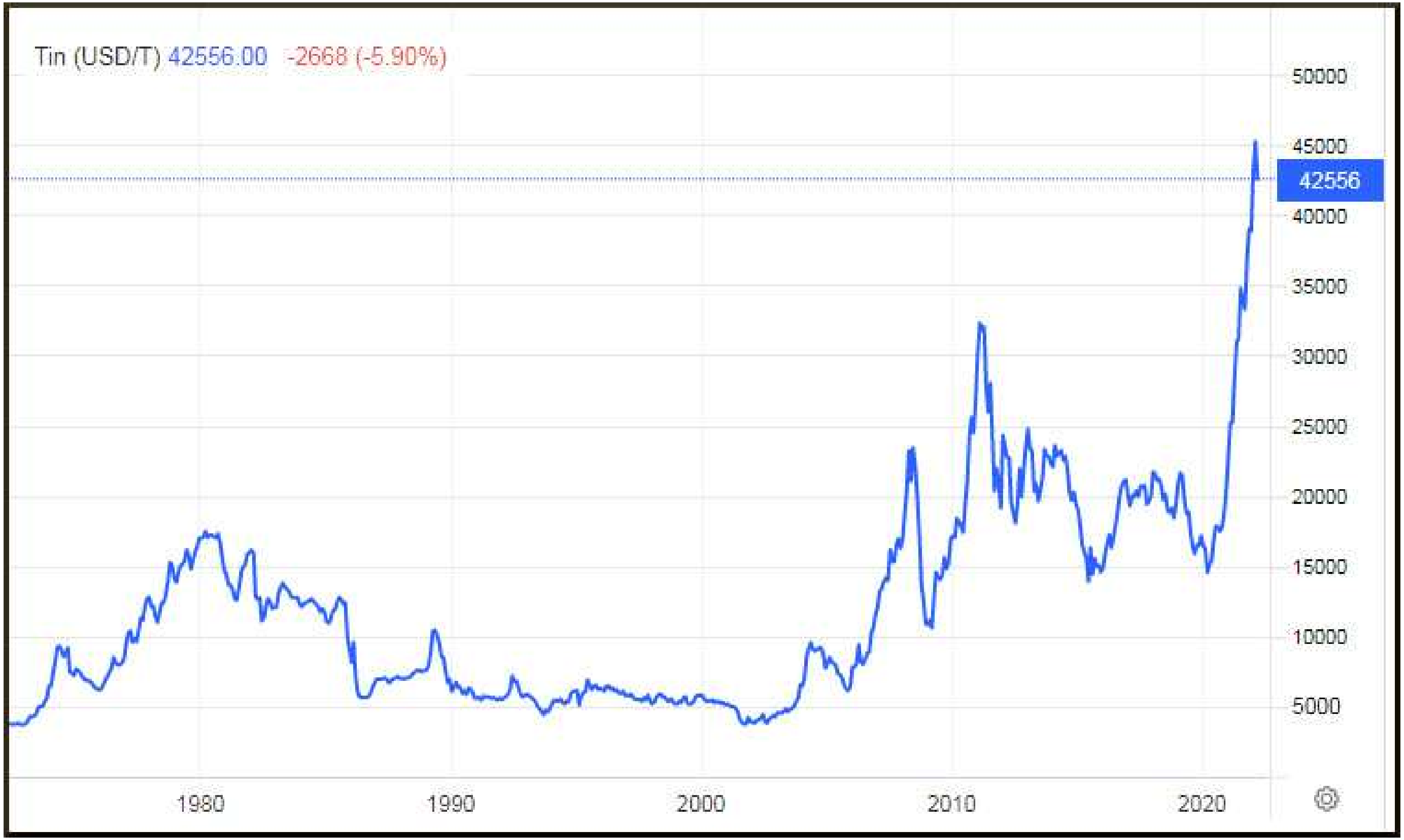
Tin – Back with a Vengeance

The price move in Tin over the past two years has finally exorcised the ghost of the Tin Cartel Crash of the early 1980s which has haunted the Tin market for so many decades. No other metal has labored for so long under such a burden of history. While it took a decade to clear away the physical overhang of metal from that debacle the high-water mark in prices from the period seemed to create a point at which investors felt "beyond here there be speculators".

In reality inflation and changed/expanded usages of the metal combined with declining grades and a dry pipeline of projects set up the metal for an eventual rerating. Curiously it was in the darkest hours of the pandemic that the definitive turn in Tin's fortunes occurred.

For a long time Tin consumers have rested upon their laurels and imagined that providence would provide them with on-going supplies at attractive prices for their margin expectations. As long as low-cost, low-tech alluvial production out of Malaysia and Indonesia could act as a price suppressant the end-users were happy and moreover unconcerned. However, such a scenario meant that there was minimal investment in new production and the pool of wannabes became very shallow indeed.

Despite the last decade showing a potential emerging supply crisis for tin, the price largely went sideways, or down. The chart that follows shows the "progress" over the last fifty years and it looks anything but a smooth ride.

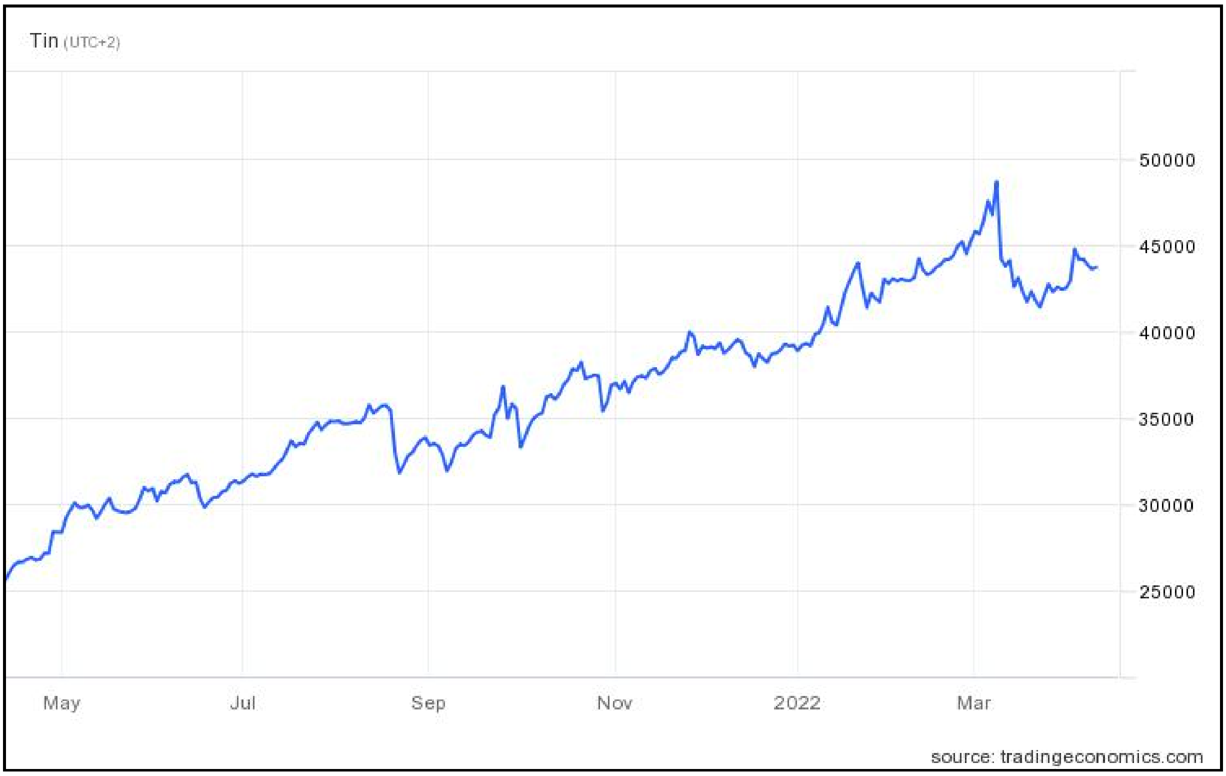


Source:Trading Economics

The supply dynamic is the prime motor of the space. Future demand was incorrectly estimated by parties such as the Tin Association and the USGS at the beginning of the decade. Their premise was that a massive shift to Tin solders would fuel a shortage. This created false expectations. The decline in traditional sources and their non-replacement is tangible though. Now is a good time to be bringing on new projects, but the only projects on the horizon (and accessible in the public markets) are Mpama South, tailings reprocessing in Namibia and the two developments in Spain.

After peaking at $32,500 per tonne in 2011, the price sagged again but then spent the period between 2016 and 2019 locked in a range between US$21,000 & US$23,000.

The table below shows the metal swiftly recouped the worst of the Virus Crisis slump effect. It then began a seemingly unstoppable rise until, in late February 2021, it finally ran into resistance and pulled back several thousand dollars before charging higher again.



Source: Trading Economics

The flush of developers early last decade when prices held firm between $19-22,000 per tonne for several years was reversed with most drifting away into other activities or meeting their demise (e.g. Kasbah). Naysayers never believed that Alphamin would make it to production and those that did feared that adding another 4% to global production would suppress prices when instead Alphamin, since the inception of its production has been able to surf the wave of price tsunami. The universe of Tin producers and serious developers is still thin despite us being two years into the (upward) correction.

We have covered the main Australian producer, Metals X (MLX.ax) before but it remains a prisoner of Yunnan Tin, undiversified and somewhat blinkered in its vision. The other developers of note are both in the Iberian Peninsula, a historic Tin mining area that had fallen into the footnotes of the history books. However, the work done by Strategic Minerals Europe (NEO:SNTA, FRA:26K0) at the Penouta mine (largely tailings reprocessing until now) and Elementos Limited (ELT.ax) at Oropesa has not even added a percentage point of new production, thus far, to an extremely constrained world supply picture.

Pricing Assumptions

We are using $40,100 for our (average) Tin price estimate for 2022, even though they currently stand at over $44,000. We are positing a slight easing in price over the following two years, but this is just us being cautious. The pipeline of new projects is almost non-existent so prices could end up staying about $40,000 per tonne, creating an even more exponential rise in Alphamin's bottom-line, particularly when Mpama South kicks in.

Until mid-2021 we were musing as to whether the price surge had its roots in the pandemic/shipping crises but since that time it has become clearer that it is a crisis of supply. Not that supply has declined (after all Alphamin added to global supply) but rather that the sheer lack of other new supply sources combined with organic growth in tin demand has tipped the balance. This has given all tin suppliers traction again in pricing but so few have the latitude to increase production that most are just sitting back and enjoying the ride, trying to enhance their margins rather than making big expenditures in production volume enhancement.

Recent Earnings

First it should be noted that there are two sets of recent results. The most detailed is the full fiscal year (ended December 31st) numbers which came out several weeks ago. Then most recently the skeletal 1Q22 numbers were published which consisted of production/sales volumes, price achieved and the EBITDA.

The table on the following page shows the earnings of Alphamin over the last two years and our projections going forward.

Salient points on the 1Q22 numbers (full details will come out in early May) are:

- ✓ The LME tin price achieved by Alphamin was a rather stunning US$43,813/t during 1Q22
- ✓ Tonnage sold was 3,336 tonnes (i.e. 270 tonnes more than produced, due to sales from stockpiles)

Alphamin

FY ended December

USD mns	FY24e	FY23e	FY22e	1Q22	FY21	4Q21	3Q21	2Q21	1Q21	FY20	4Q20	3Q20	2Q20	1Q20	FY19
Revenue	721.88	474.32	497.24		352.88	117.45	91.35	68.05	76.03	187.45	42.66	44.62	40.14	60.03	27.22
Cost of Revenue, Total	253.13	154.88	156.80		136.62	38.41	32.75	29.71	35.73	114.53	20.49	25.55	23.67	44.83	15.66
Gross Profit	468.75	319.44	340.44	-	216.26	79.04	58.60	38.34	40.31	72.92	22.17	19.07	16.47	15.20	11.56
Selling/General/Admin. Expenses	21.10	20.80	22.50		19.75	5.07	5.28	4.73	4.55	17.68	3.27	4.69	5.13	4.59	15.59
Depreciation/Amortisation	25.00	25.00	25.00		28.23	7.43	6.42	6.49	7.91	30.05	6.25	6.25	6.25	11.30	
Interest Expense (Income)	1.00	1.00	4.20		8.36	1.65	1.78	2.28	2.65	15.62	4.46	2.62	3.31	5.23	5.46
Forex loss (Gain)	1.20	1.20	1.30		0.87	0.69	0.12	0.05	0.02	1.52	2.07	(0.08)	(0.18)	(0.29)	0.00
Warrants	-	-	1.00		26.92	6.87	4.12	10.29	5.64	8.78	7.73	2.61	(0.02)	(1.55)	(6.85)
Total Operating Expense	301.43	202.88	210.80	-	220.76	60.12	50.48	53.55	56.49	188.17	44.27	41.64	38.16	64.11	29.85
Operating Income	420.45	271.44	286.44	-	132.13	57.33	40.87	14.50	19.55	(0.72)	(1.61)	2.98	1.98	(4.08)	(2.63)
Income Before Tax	420.45	271.44	286.44	-	132.13	57.33	40.87	14.50	19.55	(0.72)	(1.61)	2.98	1.98	(4.08)	(2.63)
Income Tax	126.14	81.43	86.23		44.63	34.70	9.91	0.01	0.01	7.14	3.66	2.91	0.72	(0.15)	(7.76)
Deferred Tax					8.93	0.58	5.05	9.59	8.71						
Super Profit Tax	-	35.00	38.00		15.00										
Income After Tax	294.32	155.01	162.21	-	63.57	22.05	25.91	4.90	10.82	(7.86)	(5.27)	0.07	1.26	(3.93)	5.13
Minorities	47.09	24.80	26.11	-	15.36	7.51	5.00	2.85	-	0.97	(0.84)	0.01	0.45	(0.75)	0.15
Income pertaining to Shareholders	247.22	130.21	136.10	-	48.21	14.54	20.92	2.05	10.82	(8.83)	(4.43)	0.06	0.80	(3.18)	4.98
Weighted Average Shares (mns)	1312	1308	1304	1275	1285	1188	1188	1283	1303	1065	1180	1180	1180	866	866
EPS (USD)	0.188	0.100	0.104		0.038	0.012	0.018	0.002	0.008	-0.008	-0.004	0.000	0.001	-0.004	0.006
EPS (CAD)	0.226	0.119	0.128		0.048	0.016	0.022	0.002	0.011	-0.011					0.008
Tin production - tonnes	18,950	12,150	12,100	3,061	10,969	3,114	2,832	2,412	2,611	10,319	2,898	2,563	2,739	2,119	5,216
Tin sales - tonnes	18,750	12,100	12,400	3,336	11,521	3,056	2,710	2,404	3,351	10,900	2,306	2,695	2,613	3,286	1,109
Av. Tin Price (Hallgarten estimate)	$38,500	$39,200	$40,100	$43,813	$30,882	$38,432	$33,704	$28,308	$23,083	$16,648	$18,497	$17,436	$15,359	$15,300	
EBITDA (US$)	446.45	297.44	315.64	98.00	198.59	74.35	49.07	34.10	30.11	55.23	18.90	11.85	12.90	12.45	
USD/CAD rate:	1.20	1.20	1.23	1.25	1.27	1.27	1.27	1.24	1.27	1.34					

- ✓ Implied revenues at that price and at that volume of ~US$145mn, representing record quarterly sales in both volume and revenues
- ✓ EBITDA was US$98mn

The bottom line in FY21 was $48.21mn compared to the loss of $8.83mn in the previous full year after minorities are taken into consideration. The main drivers of this were:

- ✓ Sales of around 11,521 tonnes in FY21 included around 550 tonnes from stockpiles (so in excess of production)
- ✓ The average Tin price achieved was $30,882, up significantly from the $16,648 in FY20
- ✓ Interest expense was up at $8.35mn for the full year
- ✓ Revaluation of the warrants represented the biggest hit (though non-cash) with a negative impact of $26.92mn. This was due to the steeply rising stock price during 2021
- ✓ The tax bill was $68.56mn and rose substantially during FY21, of this nearly $24mn remains in the deferred/Super Profits tax categories

As we noted in our last update, it is important to note that the company's off-mine costs increase substantially as the Tin price increases – royalties, export % of revenue costs, marketing fee ratchets and smelter deductor become more in nominal terms (% of contained Tin times the Tin price).

The Tax Situation in the DRC

Before we look at the earnings outlook it is useful to look at an interesting aspect of tax calculations for mining companies operating in the DRC, particularly when the price of the metal they mine is rapidly evolving or if their production is in some way substantially higher than originally forecast.

For background it is taken for granted that the normal corporate tax rate is 30% and we utilize that rate.

However, on top of that there is what is called a Super Profits Tax. This was introduced in 2018, when there was a revision to the mining code. The calculation of this tax is novel and complex.

Firstly, it should be noted that mining companies must submit a Feasibility Study when they wish to convert from exploration to mine development status (and also when there is a significant change in their operations). This study would contain an EBITDA projection based upon the study.

The Super Profit aspect kicks in when there is a change of over 25% in the price of the metal used in the originally submitted study. The tax is calculated on the difference between the projected EBITDA and the actual EBITDA which is of course likely to be driven higher by price rises in metals (such as Tin, Copper and Cobalt have experienced in recent years). It would also be impacted by higher production than projected.

The difference between the two EBITDAs has a multiplier of 1.25 times applied and then the resulting number is taxed at 20%. In practice a company can submit a new Feasibility Study which then resets the calculation factors. Alphamin did this in mid-2021 and expects to do so again in 2022 to factor in the effect of the Mpama South development.

There is no reason to expect that the new Mpama South Feasibility Study submitted to the DRC authorities would not also be accepted and thus reset Alphamin's base EBITDA for the tax calculations. Therefore we have factored in no effect of the Super Profits Tax from FY2024. However, we have factored in a charge for FY22 and FY23.

Earnings Outlook

With Tin prices where they are the earnings outlook could scarcely be better for Alphamin. The only problem, if it is one, is the high price of tin. This tempts naysayers to predict a pullback. Indeed, the price did have a brief retreat and then managed to firm up yet again. The company in its PEA has used $40,000 as the new normal, we have plumped for an average price in 2022 that is around that level but needs to be seen in the light of the ~$44,000 the company achieved in Q1, which is already baked in.

Even with this conservative projection for the tin price in the full fiscal year, the company sales soar from a total of $352mn in FY21 to nearly $500mn in FY22.

In the wake of the initiation of Fine Tin Project, company is running very near to its current installed capacity throughput and targeted plant recoveries. Nevertheless, the company has said that it expects to increase annualised contained tin production from the level of nearly 11,000t in FY21 to 12,300t.

The next leg up will be the onset of production from Mpama South, but in the meantime the company gets to enjoy the higher tin price, where our average price for FY22 is 30% higher than that achieved in FY21, and where the 1Q22 price achieved is 90% higher than that of the same quarter of FY21.

We factor in a minimal charge for the warrants revaluation at $1mn during 1H22 as this then disappears from 2Q22.

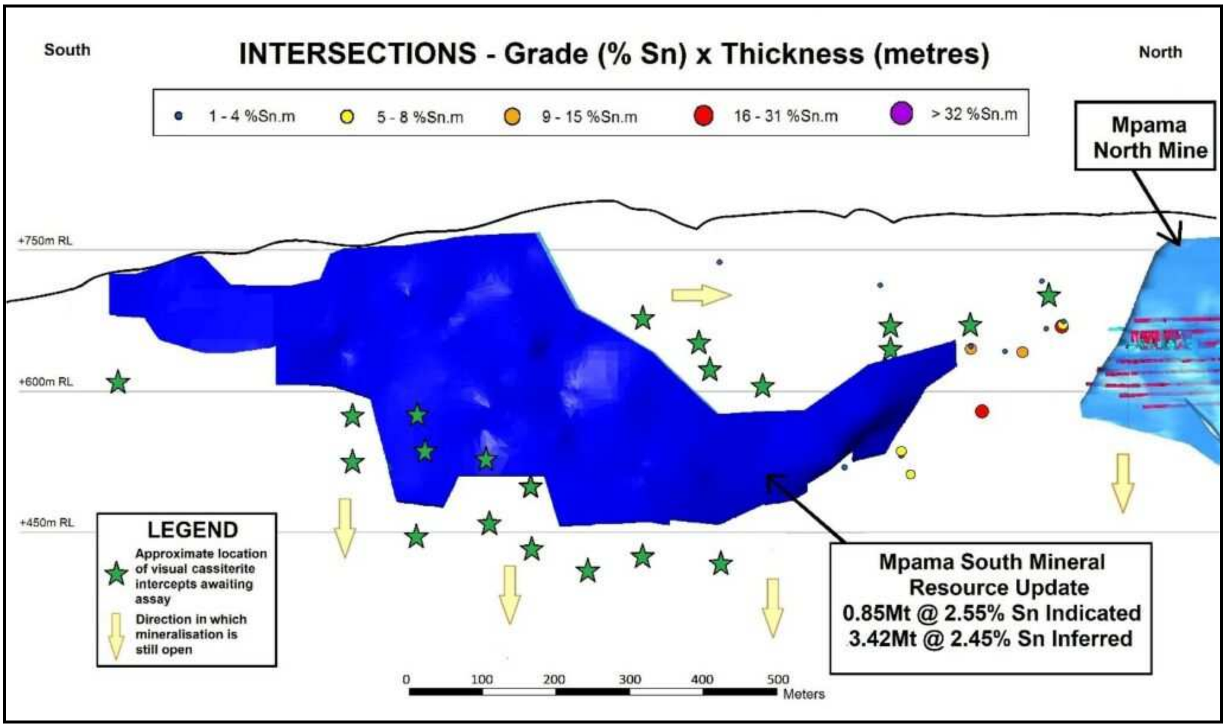
Interest expenses are reduced substantially due to the financial debt being largely eliminated during 2022 with the only meaningful interest due to the trader/offtaker.

Depreciation is essentially unchanged and there is no reason for GS&A to be meaningfully higher.

Thus, we are looking for profits attributable to AFM shareholders of $136.1mn in FY22, slightly lower in FY23 then a quantum higher at US247.22mn in FY24.

Further Upside

Mpama South remains a work in progress with the initial work and resource designed to enable a quick investment decision on development. With that achieved the company has the luxury of adding to the resource by pursuing some of the targets thrown up by the initial campaign. The cross-section that follows shows a large number of visible cassiterite showings that would merit expanding work in virtually every direction.



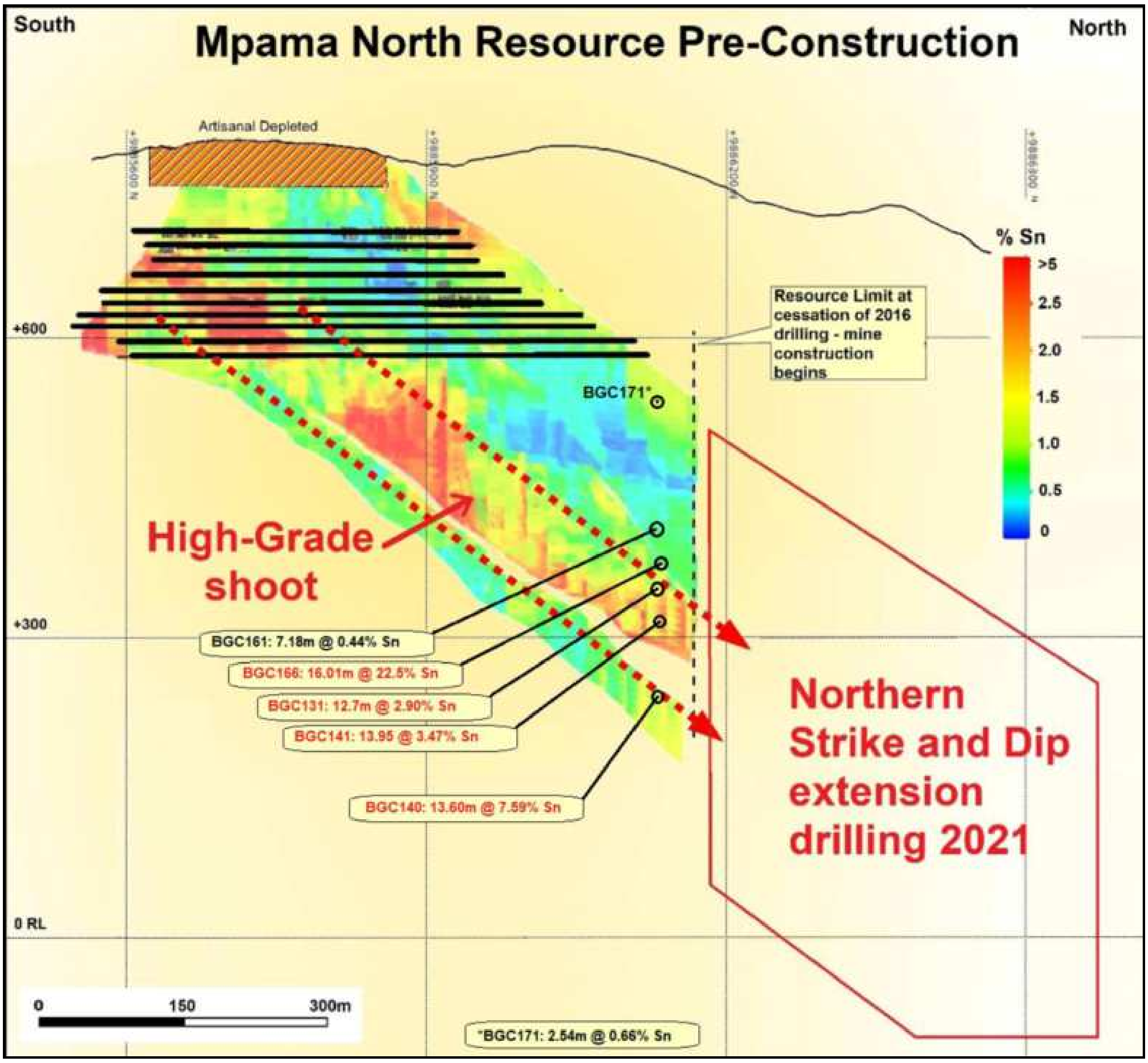
It is worth noting that the previous deepest drill fence of the 2016 Mpama North drilling campaign was also the best to that date and returned results, including:

- BGC166: 16.01m @ 22.5% Sn,
- BGC141: 13.95m @ 3.47% Sn, and
- BGC140: 13.60m @ 7.59% Sn.

Extension drilling at the Mpama North mine re-commenced in July 2021. The program progressed well with over 11,000m (22 holes) completed. The first drill holes showed increased structural complexity associated with a northeast-southwest cross-cutting fault, which had constrained the Deeps target to smaller extents than originally planned. Five new holes west of the identified fault have also intercepted mineralised visual cassiterite providing strike extension potential on the western block.

The cross-section on the following page shows the down-dip and on-strike extensions being targeted at Mpama North.

After revising the model and drilling approach, several high-grade intercepts of visual cassiterite were intersected east of the fault subsequently as well as west of the fault in the shallower Oso target. Drilling continues in 2022 to close out what is left of the Deeps target, the shallow Oso target as well as the down Dip eastern side of Mpama North, which still remains open.

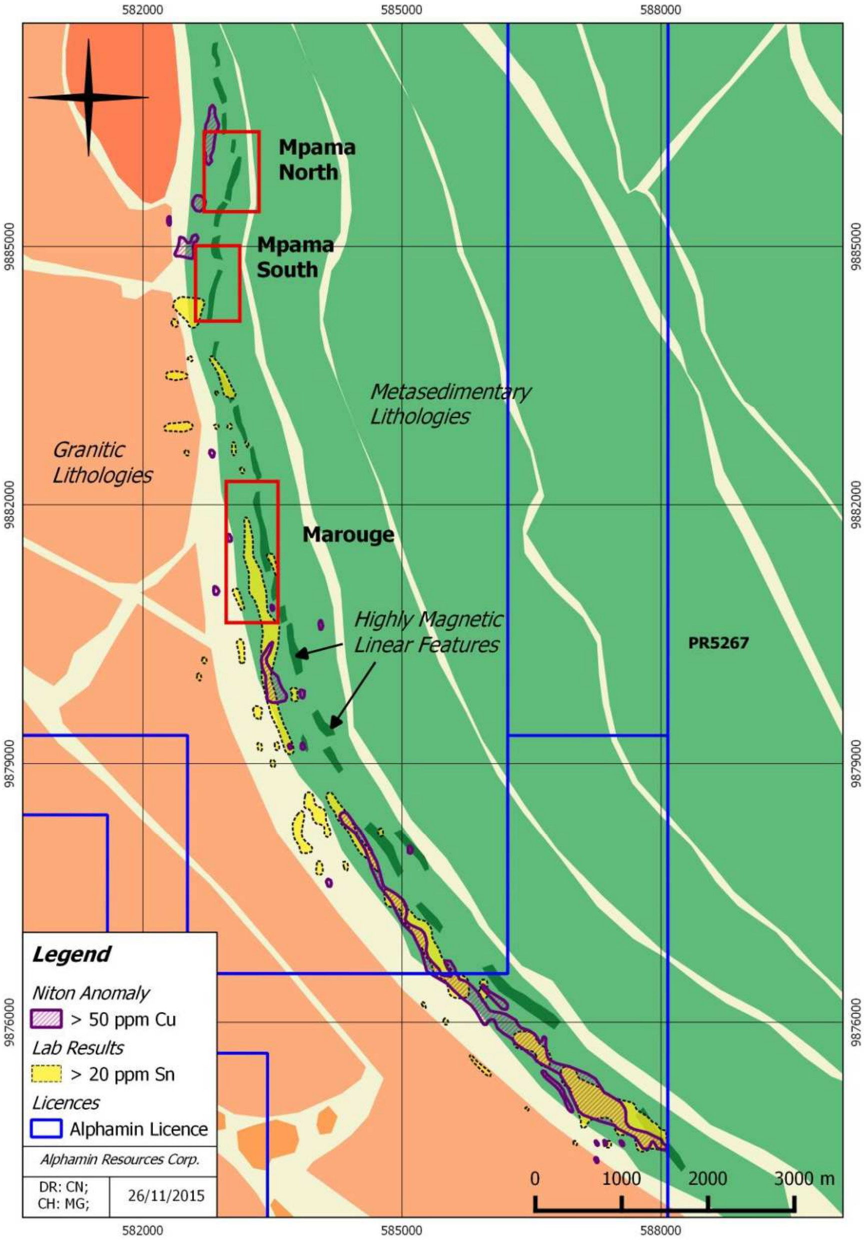


One hole in particular, MND011, returned some of the best results to date with 19.6 metres @ 17.16% Sn. While MND019 yielded 14.4 metres @ 21.75% Sn from 432.2 metres, including 11.0 metres @ 27.81% from 432.2 metres.

These results show the ongoing potential of Mpama North at depth.

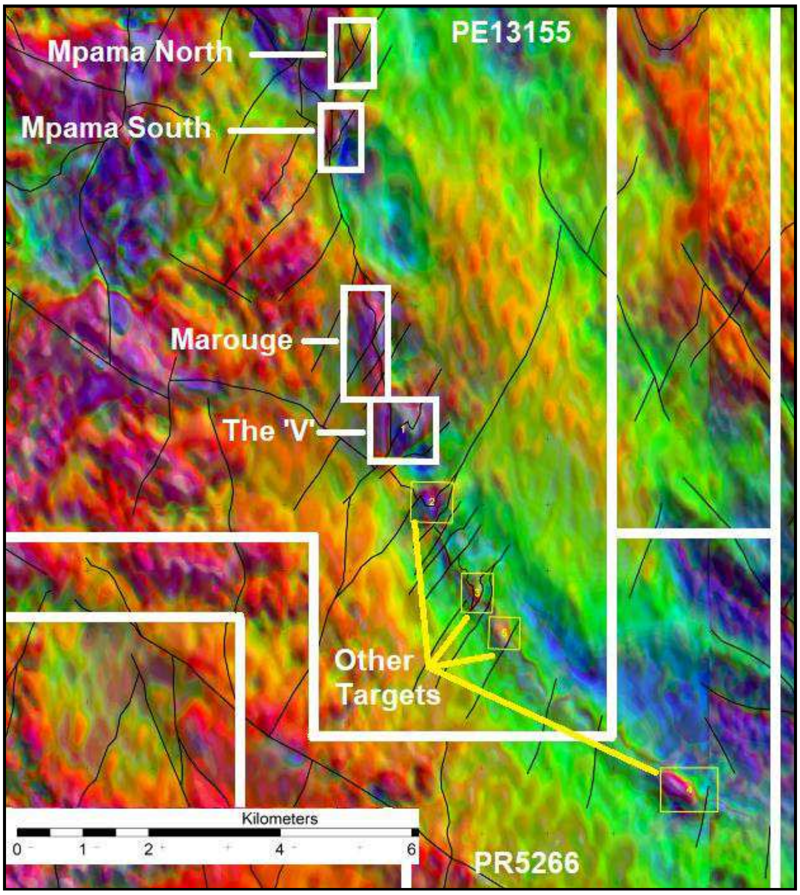
From the broader picture, the 14km-long Bisie Ridge (shown in the map on the following page) has a plethora of anomalous geochemical targets for follow-up and lies entirely within Alphamin’s tenements.

In this regard, the geological team has identified multiple drill targets for 2022 (in addition to ongoing Mpama North and Mpama South drilling).



Drilling commenced in early 2022 on the Marouge target with encouraging signs that the lithological sequence is similar to Mpama North and South and that alteration (often associated with mineralisation) is present. It is believed that at least there may be at least one additional orebody on the Bisie Ridge. Two drill targets six km to eight km south of Mpama North have been identified along this ridge. A high-density geochemical soil sampling program was undertaken in early 2021 and more accurate drilling targets were identified by the outcomes of that program.

The full range of targets are shown on the aeromag survey below:



Financing

Alphamin has not needed to undertake any further financings since the onset of production.

Meanwhile, its debt has been falling steadily and the aforementioned two tranches of warrants have seen heavy exercise rates (with those issued at a 40 cts strike in January 2018 having expired early last year). Most of the series of 30 cts options issued in April 2019 have already been exercised. Collectively these two series will have brought in around $24mn in extra cash.

Warrants

On April 8, 2019 the company issued 79,800,000 warrants in the private placement.

These warrants have been valued using the Black-Scholes pricing model and were revalued on a quarterly basis using this valuation methodology. The non-cash cost of these warrants, because of their low strike and the company's surging price has been onerous in the earnings statement, particularly in FY21 when the hit was $26.92mn. This should shrivel to less than $1mn in FY22 as the unexercised remnant are exercised or expire.

The Debt Profile

At the end of FY19 the company's liabilities stood at $94.57mn. The debt restructuring in May 2020 produced a quantum reduction in the company's debt. Meanwhile the onset of production and positive cashflows has sent the amount outstanding spiraling lower.

The current liabilities at US$79.15mn (as at end-Dec 21) compare to US$56mn at the same time in FY20. However, it should be noted that the tax liability of ~$44mn which was due to be paid in 1Q22. This has reduced the currently liabilities to a level currently where they amount to only a third of the cash balance.

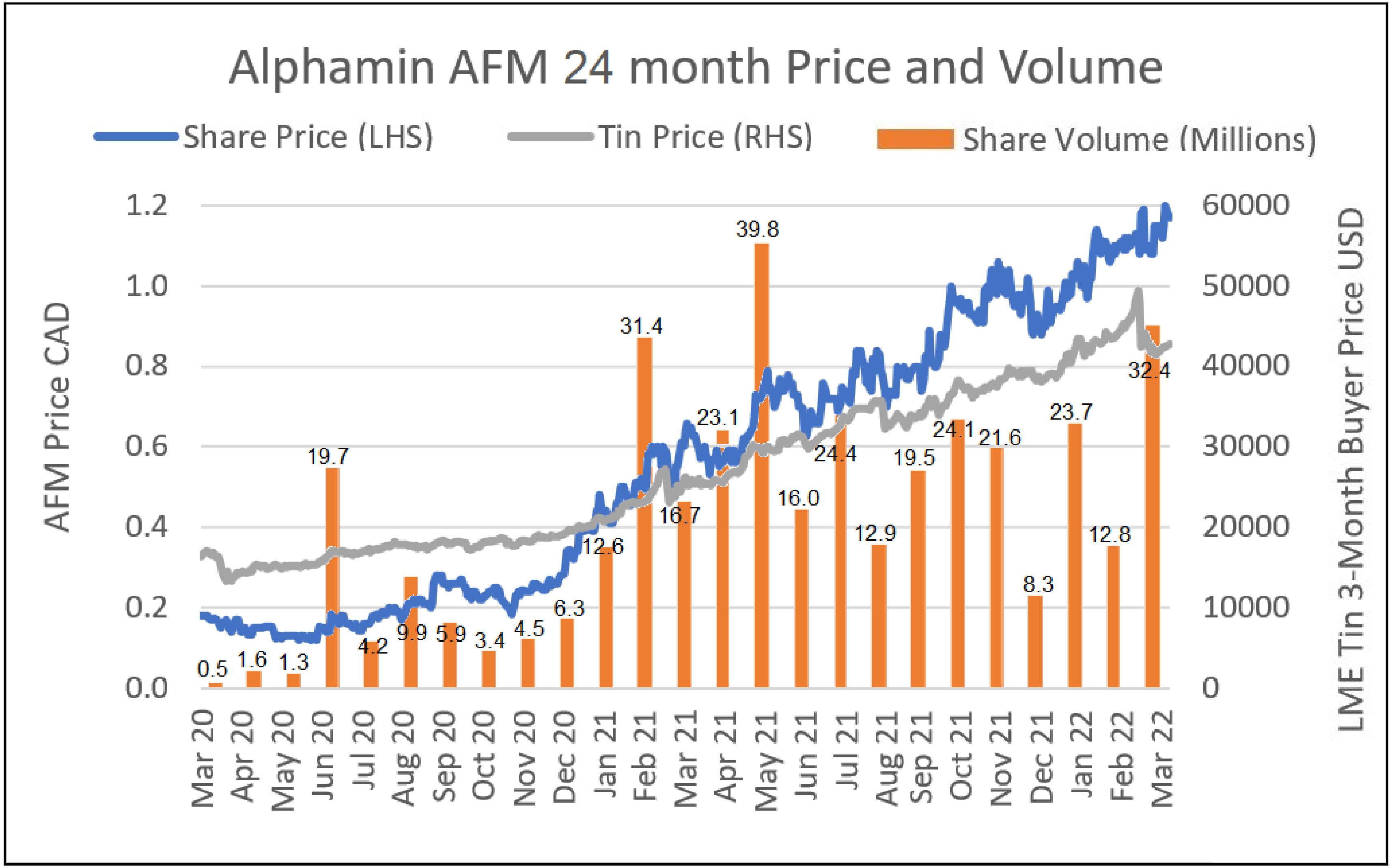
The largest remaining component of the short-term debt is the balances owed to the commodities trader Gerald (at Libor +3%) due to the mismatch between when deliveries are made and payments received.

As creditors are no longer insisting on political risk insurance for the DRC exposure the cost of debt has been reduced by a further $3mn per annum. While interest expense was ~$8.4mn in FY21, we would posit it will be half this amount in the current fiscal year.

Trading

Despite the Canadian market's only tenuous encounters with Tin and its miners/developers the rising price of the metal has not only driven up Alphamin's price but saw volumes traded surge, as shown in the chart on the preceding page. For a long period, before production began (and Tin started its ascent) the stock was seen as illiquid and largely inaccessible to purchasers wanting to accumulate substantial positions.

How much of this trading volume is attributable to domestic Canadian investors and how much pertains to international investors (likely institutional) remains an unknown. Management's feeling is that large institutions have not become evident yet but that there has been a certain flux in the investor base with the rise of smaller institutions whether they be family offices, smaller hedge funds or specialist funds. These have been drawn in by the improved liquidity.



Alphamin AFM 24 month Price and Volume
Share Price (LHS)
Tin Price (RHS)
Share Volume (Millions)
AFM Price CAD
LME Tin 3-Month Buyer Price USD
1.2
1.0
0.8
0.6
0.4
0.2
0.0
60000
50000
40000
30000
20000
10000
0
0.5
1.6
1.3
19.7
4.2
9.9
5.9
3.4
4.5
6.3
12.6
31.4
16.7
23.1
39.8
16.0
24.4
12.9
19.5
24.1
21.6
8.3
23.7
12.8
32.4
Mar 20
Apr 20
May 20
Jun 20
Jul 20
Aug 20
Sep 20
Oct 20
Nov 20
Dec 20
Jan 21
Feb 21
Mar 21
Apr 21
May 21
Jun 21
Jul 21
Aug 21
Sep 21
Oct 21
Nov 21
Dec 21
Jan 22
Feb 22
Mar 22

Dividends

The steadily rising free cash flow and cash balance and the declining debt burden have allowed the company to start paying dividends in FY21 with a 3cts payment.

The potential is clear for this to escalate rapidly. We would not be surprised to see a dividend of 5-6cts per share in FY 22 and FY 23 and 10-12cts in FY24. This factor alone should transform the shareholder base attracting yield-oriented investors in an age of rising interest rates. This would also attract foreign institutional investors who prize more that type of revenue generating portfolio holdings.

Risks

The prime risks we can envision at this stage are:

- ✘ Retracing in the Tin price
- ✘ Tricky logistic routes to markets
- ✘ Political unrest/guerilla activities in the region
- ✘ Fluctuating perceptions of Tin as a "conflict mineral"

Tin is subject to the forces of supply and demand as are most metals. The price rise has been driven by long-term under-supply/under-investment on the other. New production is almost non-existent. However, Tin is inextricably linked with industrial activity and the West (at least) is in an economic swoon of indefinite duration due to inflation, rising interest rates and the backwash from the war in Ukraine. It cannot be discounted that industrial demand might decline and eventually trim back some of the stunning gains of recent years in the short (or even medium-term).

Formerly the company was somewhat vulnerable to bottlenecks and blockages caused by climatic conditions, such as the bridge issue in late 2019 and the excessive rains in 4Q20. This problem requires the construction of better infrastructure in-country. The company would prefer not to take on such general benefit projects but, to guarantee future surety of egress and ingress, it will be helping maintain roads and bridges that it needs to traverse to markets. However, the company's access to Uganda (and ports west of there) has improved markedly in recent times with the choice of three means of access to Uganda now at its disposal

Unrest in the region has become minimal in recent times.

The now decade-old Dodd-Frank Act and the more recent EU rules introduced in 2021 have created a necessity for Alphamin to demonstrate to the likes of Apple, Microsoft and Samsung that its tin is 100% conflict-free. This the company has successfully done. Likewise, though it has propelled the artisanal miners to clean up their act (literally and metaphorically) to move their output into the daylight of "non-conflict material". Somewhat of a virtuous circle has been created that may eventually liberate mines in this part of the DC from the strictures. In many ways though the requirement to prove the provenance of metal from the DRC gives Alphamin an advantage because it is so easy to prove its product qualifies, with the opportunity to drive rogue players off the field.

Conclusion

In the buying frenzy that saw Tin rise from $13,000 to nearly $50,000 per tonne, Alphamin became the prime beneficiary due to the paucity of other Tin developers. None of the wannabes were even vaguely near to production and the main competitors were one company going over only dumps and another with a half share of a storied mine, but with the Chinese gripping them in a panda-hug. Alphamin has become the touchstone for those wanting a listed Tin exposure in Western capital markets.

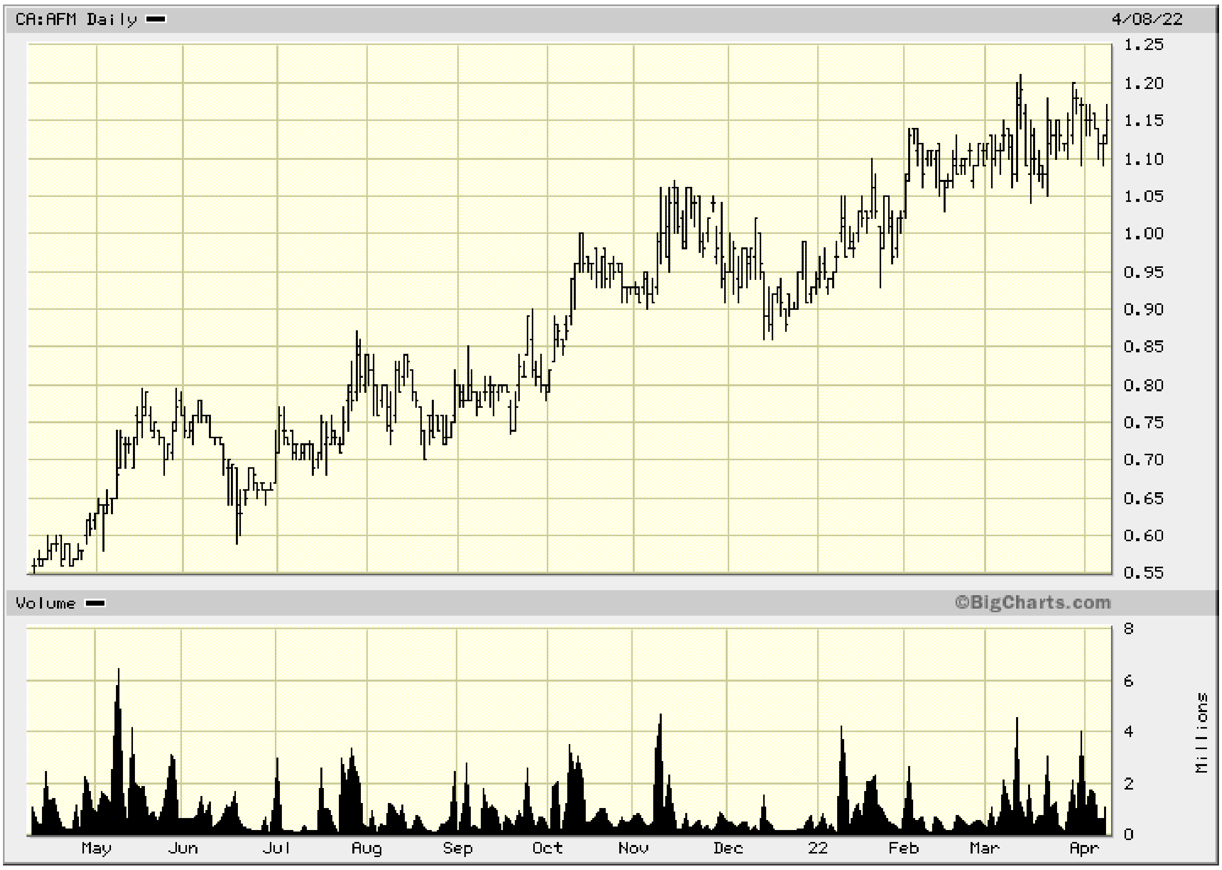
Alphamin produces tin within the lower quarter of the global cost curve which makes it sustainable from that perspective. EBITDA margins are around 70% at current Tin prices (over $40k per tonne) and upticks in price have had a snowball effect on earnings and thus the valuation afforded by the markets.

The company suffers from double price discount factors, which hold back its stock price. Frankly without these it would be trading at over $2.50 per share. The first discount, and the obvious (and unavoidable) one, is the DRC-factor but surprisingly this may lessen over coming years as the DRC is gradually worming itself back into investors' portfolios, if not affections. The second discount is that Bay Street doesn't know Tin and doesn't care to know the metal. This combined with the paucity of serious Canadian investing institutions in mining (compared to, say, London) means the company undershoots its potential in truly becoming the Godzilla of Tin in global equity markets. This latter problem could be mitigated by a listing in London or New York.

We could be much more aggressive in our price projection for the company. The flies in the ointment are all external. There is global instability caused by the Russo-Ukrainian War, attendant upon this is the almost certainty of softer world economies and the real risk of substantially higher interest rates with negative impact on equities markets.

From now on the perception of Alphamin will be coloured by the combo of the Tin price and the earnings performance than vibes about the DRC. We are estimating EPS of over CAD 12.8 cts per share forecast for FY22, 11.9 cts per share in FY23 and 22.6 cts per share in FY24.

In light of this perfect storm of positive developments for Alphamin, we reiterate our **LONG** rating on Alphamin and have upped our 12-month target price to CAD$2.00.


CA:AFM Daily
4/08/22
1.25
1.20
1.15
1.10
1.05
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
Volume
©BigCharts.com
8
6
4
2
0
Millions
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
22
Feb
Mar
Apr

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