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Medusa Mining Limited MML

Building low cost gold production base with the blue sky from porphyry discovery

Trading data

Share Price	$1.15
12 Mth High/Low	$0.94-$1.58
Market Cap'n	$167m
Issued Shares	145 mill. ordinary
Unlisted Options	13 mill.
Cash Balance	$7m (31/3/08)
Top Shareholders	Citicorp Noms 19.7%
	Gazmetall Hold 12.1%
	Directors/Mgt 17.1%
Top 20	74%

Investment perspective

Medusa Mining Limited ("MML") is an impressive emerging gold stock that has done very well developing its high-grade underground gold mine the Philippines, showing good discipline with capital expenditure and managing to keep operating costs at low levels; below US$250/oz.

We are becoming more confident that it is establishing itself as a long-term producer, boosting production to 40,000 oz then to 100,000 oz p.a over the next 18 months. There is a reasonable expectation that the Co-O mine resources will exceed one and even two million ounces without excessive effort. A high level of drilling activity should add to the ounces quite quickly.

MML is proceeding to drill some porphyry copper/gold targets in some of the most exciting geology possible. The first one to be drilled, Lingig has a previous discovery hole that returned an intercept 150m at 0.4% Cu, with the last two metres being 4.98% Cu and 0.4 gpt gold. It stopped in mineralisation. Repetition of this type of intercept would lead to a transformation of the Company.

Some interesting observations

Whilst preparing the Gold Review that was released last week, covering the top 20 ASX-listed gold stocks, we were particularly intrigued with Medusa. Here, we saw an underground gold producer that was actually achieving its stated objectives, albeit with some variations caused by exploration success. Importantly, it has been doing so without capital cost blowouts.

We also saw an Australian mining company that is succeeding in the Philippines – almost a first! Furthermore, it seems to be the lowest cost gold producer on our list. We needed to understand why.

History going back four years

Geoff Davis first showed us his plans for the Philippines about five years ago. He was looking for funding for an initiative that was aiming to replicate the success of Bill Phillips, an experienced underground miner from Australia. Bill had acquired a project left behind by Mussellbrook, a company that raised, and lost, approximately $40m about 20 years ago. (Musslebrook was an epithermal gold play with the backing of Kerry Packer, and chaired by Russel Madigan).

At the time I was intrigued by the geology and the possibility of a repeat of the Diwalwal gold mine, 60 km away. Diwalwal started out as a series of near surface epithermal veins grading 3-5 gpt at surface, increasing to 15-20 gpt below 150m depth, and to 20-25 gpt below 300m depth. The veins merged and expanded in width as they went deeper. Recent estimates place cumulative production at 7.5 mill. down to approximately 600m vertical depth.

However, I have never been keen on the geopolitical situation in the Philippines. The ownership of projects was always convoluted due to foreigners only being allowed to own 60% of projects directly, and the "extra" equity had to be disguised by a system of trusts held by locals. Further, Australian mining companies have not been successful in the Philippines. So, I just took on a watching brief.

Geoff successfully floated Medusa with an ASX listing in December 2003. An AIM listing was achieved in November 2006, about the same time that a deal was struck to acquire Bill Phillip's interests in the Co-O mine for shares and cash, in December 2006.

Fast forward to today

MML's gold mining is based on the Co-O underground gold mine in the Philippines, where a resource of 713,000 oz at a grade of 10.9 gpt was announced in September 2007. It has recently been granted an MPSA (Mineral Production Sharing Agreement) for a 25-year period, renewable. The mine is on Crown land. An effective 100% interest is held in the net cash flow of the mine in accordance with Philippine legislation.

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Initially it was thought that the licence hosted gold mineralisation similar to that of nearby working mines, where narrow high grade veins improved in width and grade as they extended hundreds of metres below the surface. The scope of mineralisation has expanded considerably though, with nine quartz veins now found within a 200m wide zone. These are generally 1-4m wide, with the lowest grade being approximately 7 gpt and the highest up to two ounces. The probable mining reserve of 256,000 oz carries a grade of 11.1 gpt with a 3 gpt cut-of grade and a top cut of 200 gpt. An increase in the reserve is expected within a few months due to the level of development driving being undertaken. Mining is all hand-held with good ground conditions and only limited amounts of timbering needed.

Expansion in progress

The mine had reached the 40,000 oz p.a. level by mid last year, but the success of the exploration drilling prompted a decision to increase the capacity of the operation. This meant that the rate has had to drop back to 20,000 oz p.a. during the redevelopment period and the excavation of a 240m external shaft and a 120m internal shaft. Operations have been close to cash breakeven over recent quarters as a result, on cash costs of US$238/oz and capital expenditure. It is expected to build up to 40,000 oz p.a. by late 2008, to 60,000 oz p.a. by the end of 2009, achieving 100,000 p.a. in 2010, facilitated by the excavation of a new shaft, initially to a depth of 420m.

Sunk capital to date is in the order of $20-30m, with another $10m of capital expenditure on shaft sinking expected over the next 12 months. By the time of the completion of a new, deep shaft later in 2009, the combined hoisting capacity of the four shafts will be in the order of 1,000 tpd (365,000 tpa). On-going capital development is a feature of all underground gold mines. Here, MML is budgeting for $4-5m p.a. That equates to US$50/oz on the 100,000 oz p.a. rate.

Very low operating costs

Operating costs are very low due to the combination of inexpensive labour costs and good gold grades. Long term the costs are expected to be less than US$250/oz. Power costs of 10¢/Kw/hr are incurred at the mill but the mine is still on diesel power, costing 40¢/Kw/hr. Grid connection late this year will bring power costs down from $250,000 per month to $80,000 per month. Hydro power is the key to the low rates.

Financial position is reasonable

The Company is in reasonable financial shape with a cash balance of $7-8m and no debt. Additional funding would be useful though, particularly if the Company is to boost its exploration program There is no hedging in place.

Political risk

It would be remiss of us not to highlight to investors the potential political risks of operating in the Philippines. However, we note that the company's mining project and operations are run within a Philippine company called Philsaga Mining Corporation which has been operating for 8 years without incident. Discussions with management have also maintained an extremely strong rapport with local groups and the two provincial governments governing the area in which the company operates, with Philsaga being the largest employer in one of those provinces.

Gold exploration upside is significant …

MML will double its exploration effort over the next 12 months, lifting the number of surface drill rigs from 7 to 10-12, plus two underground rigs. The understanding of the regional geological setting has improved significantly over the past two years. A 3D model is currently being prepared, which will add further to perspectives.

... But the real wildcard is the porphyry exploration

The Philippines is well-known for large porphyry copper/gold deposits e.g. Oceana's Didipio mine. MML has its own porphyry system at Lingig, with a 150m intercept at 0.4% Cu having been reported. The last two metres of this hole returned 4.9% Cu, and gold grades of 0.5 gpt were starting to appear near the bottom of the hole, at 250m depth. This will be a priority drill target with drilling announced to commence before the end of June 2008.

Lingig was first discovered with a Japanese Aid program in 1974. A program of soil sampling and IP surveying identified the anomaly. Only five holes were drilled, all to an arbitrary depth of 250m. The first hole hit 150m at 0.4% Cu, including 52m at 0.65% Cu. Three other holes were barren.

This sort of exploration target, with a huge alteration system, is one that can really turn on the speculators. Mapping of outcropping porphyry rocks 500m to the north gives an idea of the minimum length, and enables us to guess an average width of 250m. This could support an orebody with a 300,000 tonne per vertical metre (TPVM). Each 100m depth would provide 30 mill tonnes, and it would not be uncommon for these to have a 500m vertical extent, giving 150 mill. tonnes. If the grade is 0.4% Cu, this would be 600,000 t of copper in-situ; but the grade could be anywhere within the range of 0.4-0.6% Cu. If the grade is 0.25 gpt gold, this would be well over a million ounces.

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An example of a porphyry copper/gold production being brought into production is Phu Kham in Laos, owned by Pan Australian Resources. Phu Kham has a proved and probable reserve of 160 mt at 0.64% Cu and 0.26 gpt gold. That cost US$241m to develop a 12 mtpa operation that will produce 60,000 tpa of copper and 60,000 oz p.a. of gold, in concentrate. Cash operating costs are estimated at 91¢/lb, net of gold credits.

Consider that the market capitalisation of MML is currently $160m. The market capitalisation of Pan Australian is $1.5bn. There is plenty of room for price appreciation.

The exploration story doesn't stop with Lingig though. The Tambis-Barobo region hosts a number of other promising geological settings offering potential for gold, copper and iron ore. Drilling is scheduled to commence before the end of June 2008.

Profit estimates

Whilst we prefer to focus on cash generation rather than the more conceptual notion of profits, we have seen some research written by a London-based broker that forecasts NPAT of $2.5m in the year to June 2008, rising to $12,8m, $23m and $31m in the subsequent years. Without commenting on the exact numbers, we believe that shareholders should expect a strong earnings growth profile.

Disclosure The author does not own any shares in MML.

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