

Bougainville Copper Ltd.

Roaring back into life?

- Preliminary results of a detailed study about reopening the mighty Panguna copper mine are now scheduled to be presented within the next four weeks. In November, an extended version of the study will be released. This is the first time, since the mine was shut by civil war in 1989, that concrete financial and technical parameters for reopening the mine are being set down.
- Rio Tinto, the Australian mining giant that has a 53.58% stake in the company, just confirmed that those parts of the study that are aimed at geology, mining, tailings, environment and safety are now “largely complete”. As a next step, Rio Tinto has just secured the services of Hatch, one of the world’s leading consulting companies for large-scale mining and infrastructure projects. The Brisbane-based subsidiary of Hatch will contribute its know-how about the processing of ore and the construction of infrastructure. Hatch is managing a portfolio of multi-billion Dollar projects in the mining industry. Amongst its track record is a project where it revived studies from the 1970s in order to plan a large open pit mine.
- It is safe to assume that Hatch was hired only after the internally written parts of the study came out with positive results. The Hatch contribution represents a major step towards reopening the mine. In early 2008, few outside observers would have believed that this year would see the compilation of such an in-depth study, including the hiring of an outside consultant of this stature already. Hatch is currently working on projects worth in excess of \$50bn (to download the company’s informative annual report, visit www.hatch.ca).
- Hatch is scheduled to deliver its contribution in November, but the existing results of the study will already be presented in August. Media attention for Bougainville Copper is now bound to increase. Dow Jones News service just yesterday made a start by publishing an interview “Rio Tinto Wants To Restart PNG’s Bougainville Mine”.
- Even without any production currently going on, the proven copper reserves in the ground represent a discounted present value of about A\$8 per Bougainville Copper share. This compares to a current share price of around A\$1. The media reports surrounding the publication of the study are likely to act as a catalyst for gradually narrowing the massive gap between the current low share price, and the much higher value of the underlying assets. The risk/reward ratio of an investment into Bougainville Copper might never have been more favourable, than now. With the story of Bougainville Copper’s impending revival likely to gather steam, the coming months can be used to accumulate Bougainville Copper shares, especially during weaker market periods.

Plus: Exclusive 1h video footage of Bougainville available for download!

Dear Reader,

I made every effort to get this report out to you ahead of August.

Usually, August is not quite the most crucial month for stock market investors. Bankers, brokers and private investors alike are more likely to head to the sea or into the countryside, than to stay glued to their Bloomberg terminals and Internet screens. It's much more of a time for watching the waves break on the beach, than to stare at the daily ups and downs of share prices.

For investors in Bougainville Copper, however, August 2008 might just be the most important month of the last 20 years.

In this report, you'll learn why.

You are also getting the hard, proven facts why the revival of Bougainville Copper has never been so close, so tangible and so real.

A one-minute primer on Bougainville Copper

For new readers, I'll quickly sum up the situation of Bougainville Copper in a few paragraphs.

Bougainville Copper used to be one of the world's largest copper and gold mines, until it was shut down by riots and a subsequent civil war in 1989. The civil war ended in 1997, but the war-ravaged island on the Eastern edge of Papua New Guinea remained in a dire state, both economically and politically. The mine had previously been the island's major source of income and it remained closed, even after the end of the war, because of an ongoing occupation through a band of remaining hardcore guerrillas. These were under the leadership of the late Francis Ona, a former mine employee who had started the unrest



During the remainder of 2008, this giant hole in the ground could attract plenty of investor interest

in 1989 by stealing dynamite and blowing up mine facilities. Ona refused to acknowledge the end of the war and instead holed himself up in the area around the mine, declining to hand in the weapons or to let anyone even near the mine.

Ona died in 2005, and ever since then the progress towards reopening the mine has gained momentum with every passing year. Politically too, things have changed. The island is now on the path to independence, something that the locals have been striving for ever since the 1960s. The national government of Papua New Guinea has given the island a preliminary status of semi-autonomy, with the right to govern the island split between a newly elected local government and the national government in Port Moresby. Full independence would then be granted at a later stage, provided the island manages to go through a certain process of building local government capability.

Quite crucially, Bougainville will only be able to negotiate for full independence once it has become financially independent. At the moment, the "Autonomous Government of Bougainville" (AGB) relies on external funds for more than 95% of its budget – making it autonomous in name but not as far as finances are concerned. The majority of the funds for the island's local government still come from the national government of Papua New Guinea.

Because of the importance of mining for the future finances of the island, the national government also still keeps control of some aspects relating to the restructuring of the Bougainvillean mining sector.

Right in the midst of this political manoeuvring, is Bougainville Copper. The company is a subsidiary of one of the world's largest mining companies, Australian-based Rio Tinto. The mining colossus has stood on the sidelines during the time of crisis, but has always remained committed to eventually reopening the mine when the situation allowed. Rio Tinto has put Steven Taylor into the position of Chairman of Bougainville Copper, a former Bougainville Copper employee who "would love to get back and take a look".

The upside for investors is, that Bougainville Copper already owns major assets. The company has vast proven reserves of copper and gold that would last for another 15 years of production. The ownership rights to the mine and to other highly prospective exploration areas on the island have been secured by an agreement between the national government of Papua New Guinea and the Autonomous Government of Bougainville. In brief, the national government obliged the semi-autonomous government of Bougainville to respect the old contracts, especially the Bougainville Copper Agreement (BCA) that regulated the original mining operation ever since 1967.

The downside for investors is, that this is a company of enormous complexity – both in regards to the process behind reopening the mine, as well as in regards to valuing the share and its potential. There is no brokerage research and investors have to dig out information from public sources and then, quite literally, put together a puzzle. That's why to this day, only few investors have started to take notice of this opportunity.

Bougainville Copper is probably best summed up as being the opposite of a hyped-up mining share. The kind of exploration and mining companies that are promoted on the stock market, usually have brilliant PR but no proven reserves. Bougainville Copper has no PR, but plenty of proven reserves.



One thing that's for sure, is that even just a simple valuation of the existing, proven reserves gives the company huge potential. An accepted rule of thumb for valuing resource assets that are not yet in production, is to value them at 10% of the eventual market value of the reserves.

In the case of Bougainville Copper, just the proven copper reserves in the Panguna mine are worth about A\$8 per share, compared to the current share price of A\$1. These reserve figures could actually turn out to be way too low, simply because improved mining technology has probably increased the recoverable reserves of the Panguna mine. Also, Bougainville Copper holds the exploration rights for a whole number of additional sites on Bougainville that have not yet been factored into the reserve equation. Either way, the share price seems likely to rise several hundred percent once the mine is given the go-ahead for reopening.

Longer-term, there is credible potential for the share to rise by a factor of 10, 20 or even 30, as shown in great detail in my original December 2007 report.

Opportunities where proven natural resource assets are given away for pennies on the Dollar, are far and few. It is the remarkably large gap between the current low share price and the much higher value of the underlying assets that originally attracted me to Bougainville Copper. Compare this potential to risky exploration companies, 95% of which never manage to find sufficient reserves and eventually file for bankruptcy. Bougainville Copper has reserves that are already proven. All that is needed as a catalyst for making the share rise massively, is a clear decision to reopen the Panguna mine. Then, the gap between share price and asset value will gradually be closed.

The question is, just when and under what circumstances will it happen?

Whilst not claiming to have a crystal ball, this report is probably providing you with more of an in-depth assessment of the current prospects than anything else that you can find written about Bougainville Copper.

How to best analyze this opportunity

There are generally two ways to approach Bougainville Copper.

Option number one involves subscribing to the largest Papua New Guinean newspaper, the *Post Courier*. In it, you'll find a daily stream of news about the political situation. The island of Bougainville is one of the country's hot potato issues, and it receives widespread interest from politicians and the public alike.

This one newspaper alone can keep you busy with a constant flow of information about the very latest development in Bougainville. If it wasn't so sad for the poverty of the people involved, you could say that following this ongoing political saga actually has some real entertainment value. Some even say, it's highly addictive. Besides the *Post Courier*, *The National* is another recommended reading.

What I can promise you is, that you'll end up spending a lot of time reading up on small island politics and family feuds. Most of this information however, is the kind of white noise that a stock market investor should actually filter out. The daily goings-on distract way too much from the actual, longer-term trend.

A slightly more sensible approach, is to assess the situation from a bird's eye perspective. This is the way I do it. For an investor who wants to bag a share, that in my opinion will end up multiplying in value, it's much better to keep the bigger picture in mind than to worry about every single movement of the share price.

Think about it. Here is a company where you buy existing assets for a fraction of their actual market value. I first pointed out the potential of Bougainville Copper on Christmas 2004. Back then, the share price was hovering in the A\$0.20 to A\$0.25 area. In the meantime, it had been trading as high as A\$2. It's now back at A\$1, simply because it has always been a volatile share that often has daily price swings of 10% or even 20%. There have been times when the share price halved within months, only to then double again within weeks.

Would you rather stay onboard for another rise by a factor of 5 or 10, or worry about the latest daily movement? It really depends on whether you are a daytrader, or an investor who is looking for that one investment coup that can really make a difference in your portfolio.

Exactly!

There's all the more reason to simply put away a few shares and stay onboard, because the next 4 years are likely to bring a much more rapid development than the past 4 years. Using this share for a few occasional daytrading gambles would seem to be akin to wasting a much bigger opportunity.

Here's why.

Learn from a place where all this has already happened

When people ask me why I travel such an awful lot, I tend to explain how exactly I have been making money all my life. Put in a very simple way, I look at what's happening in one part of the world and then try to anticipate where else the same thing could happen.

In a globalized world, trends emerging in one place often end up appearing in other places too. If you can work out which trends will stay a local phenomenon and which are going to happen elsewhere on the planet, then you are halfway down the road to making some serious money.

One trend that I probably don't even need to familiarize you with anymore, is the global hunt for commodities and the unique role that the Chinese are playing in it.

In a nutshell, China is aggressively buying up natural resources all over the globe. They consider it one of their strategic goals to own the resources that they need to fuel their growth, be it coal, iron, uranium, copper or oil. With a \$1,680bn war chest held by the country's central bank (and yet more finance available to Chinese companies), China now has the financial might to expand into those corners of the globe where it can grab valuable, strategic resources.

If you want to know what's going to happen in Bougainville, I urge you to take a look at Congo.

THE DAILY TELEGRAPH | MONDAY, JULY 14, 2008

Gerald Warner David Miliband's double standard on Zimbabwe and China telegraph.co.uk/warnerblog

WORLD NEWS

China's £4bn drive to capture heart of Africa

In return for the rights to Congo's copper and cobalt mines, the war-torn country is being rebuilt. Mike Pflanz reports from Lubumbashi

Frederick Kitumbela, 23, a Congolese road worker, is watched by a Chinese foreman while a digger, manned by another Chinese national, works on the road from Lubumbashi to Kasumbalesa - just part of a 2,000-mile network

GENERAL AFRICAN REPUBLIC
Kasumbalesa
LUBUMBASHI
ANGOLA
ZAMBIA
LUBUMBASHI
KASUMBALISA

What China has done in Congo, Rio Tinto is likely to achieve on Bougainville

It's an example that I have already written about in great detail in my December 2007 report on Bougainville. Now there is reason to write yet more about it. That's because, a few weeks back, the Chinese carried out some groundbreaking action in Congo – literally.

My bet is, that what happened in Congo during the very recent past, is already being noticed in Papua New Guinea and Bougainville. If ever there was a role model and an indicator for the future development of

Bougainville, this has to be it. Once more, we can take a look at one part of the world to learn how people at the other end of the globe will probably end up working out their problems.

Make the mining companies contribute to public infrastructure investments

Mining companies are generally not very popular.

In the past, digging deep holes and mineshafts all too often also led to extreme environmental damage. At times, locals need to be rehoused to another location so as to make space for the mine. There are plenty of reasons to hate big mining companies. Envy is another one. During the peak of a commodity cycle, the companies are vastly profitable and thus end up being accused of exploiting the countries that they operate in.

Not being liked by the public is detrimental to being successful in business. In the Internet age, it's simply impossible for a large company to get away with unsavoury behaviour. Even Beijing has started to take notice of the need for clever public relations. The Chinese have realized that by showing their mining companies at their best behaviour, it's much easier to win mega-size resource deals.

This has now reached a point, where the West (i.e. Western mining companies) needs to learn from China. Congo, it so happens, is the prime example. What nowadays is the Democratic Republic of Congo, was originally run by the Belgians as a colonial outpost. Even during colonial times, Congo was one of the world's largest copper producers. However, the country descended into a brutal civil war back in 1998. The subsequent fighting left anywhere between 4m and 13.8m people dead, making the Second Congo War the deadliest war since World War II. The country was left in ruins and without any financial means to rebuild itself.

Local politicians did, however, take notice of the vast proven copper reserves. These were assets that had already been proven by geologists, but for which no local expertise and capital were available when it came to actually digging it out from the ground.

First of all, what better way to repair the country than to make use of the existing, proven reserves in the ground?

Secondly, why not let the mining companies invest some of their capital and expertise to help the country with rebuilding its public infrastructure?

Eventually, such a deal was struck with Chinese mining companies.

And what a deal it is – not just for the mining company, but also for the people of Congo.

In return for valuable rights to produce copper in Congo, the Chinese have agreed to invest a staggering \$9bn into the country. Of that, only \$3bn is actually going into mining operations. The remaining \$6bn will go towards rebuilding the country's derelict infrastructure. In other words, mining is so profitable nowadays that China can afford to invest twice the amount that it is putting into actual mining, into rebuilding the country and what one would generally consider 'social investments'.

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|---|---------------------------------------|
| • 2,050 miles of roads | • 4 universities |
| • 2,000 miles of railway tracks | • 2 electricity distribution networks |
| • 32 hospitals | • 2 hydroelectric dams |
| • 145 health centres for less urgent treatments | • 2 airports |

The sum of \$6bn would stretch a long way in just about any country, but in Congo, it literally buys you an entire country's infrastructure.

To reduce the risks of local bureaucrats siphoning off money, the deal has been given a unique structure. The local government doesn't even get to see any cash. Instead, China is obliged to finish all these infrastructure investments itself – and all that the local government needs to do, is to accept the keys once the facilities

are finished. Contrary to Western countries, the Chinese don't even try to attach too many many conditions to these in-kind donations. All they want in return, is to be put onto a fast-track to being granted resource rights.

Eventually, decision-makers on Bougainville will take notice of such deals being arranged in other parts of the globe. Thus what the Chinese are to Congo, Rio Tinto will be to Bougainville.

For rebuilding a war-torn country – and to do so fast – there currently is no better way than to partner with a large mining company and have them pick up the bill for some (or all) of the local infrastructure investments.

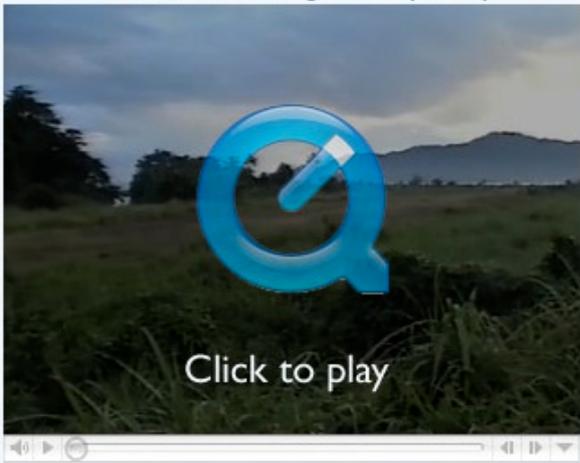
Provided, that is, if you happen to be lucky enough to have some major resource deposits in your country.

Lucky for Bougainville that it is an island made of copper and gold. The treasure only needs to be dug up – and to some degree, as I will explain later, it actually only needs to be put onto a freight ship.

A real life view of the current situation on Bougainville

Formerly war-torn countries are not the kind of investment destination that appeal to your average investor. Usually, it takes a good 10 or even 15 years before the public's perception of a former war country returns to normal. Just think of Serbia, which to this day (9 years after the war) still has a certain ring to it. Never mind that life in Serbia – and that includes business – has long since returned to normal. Had you invested into Serbia when the country was still generally perceived as a war-torn, dangerous place, you would have made a fortune in the meantime.

Take a look at the video footage that I have on my website. This was shot by someone who lives on Bougainville. There is a 27-minute video of the mine, and a 33-minute video of life on Bougainville.

Part 1 - Life on Bougainville (33min):	Part 2 - Mining Operation Facilities (27min):
	
You can view both video clips on my website: http://www.undervalued-shares.com/mediapage-bougainville.cfm	

What you will see there, first and foremost, is a normalization of life on Bougainville. There is still the damage that was caused by 8 years of guerrilla war, when 20,000 people died. However, Bougainville is not any longer a place where gun-touting criminals rule over a suppressed local populace. Instead, the islanders sell their modest wares at markets; repairs are going on everywhere; and there now even is some minor construction.

When our correspondent travelled around Bougainville, he found locals busily making use of the newly set up Internet cafes. The locals are “crazy about mobile phones”, as one Bougainvillean explained.

You'll see the old supermarket in Arawa, the main mining town of Bougainville, currently being put back into operation. “Bougainville is on the up”, as the project manager explains in the video.

At the start, economic miracles are always hard to detect. Generally speaking though, as soon as the majority of the population starts to engage in commerce (fostered by cheap communication through mobile phones and the Internet), it's a pretty safe bet that the economy is gaining some traction. It's all happening on an extremely basic level, but it's now crystal clear that the island is generally on the way up rather than on the way down.

No wonder then, that the younger generation isn't much interested in guerrilla warfare anymore. "The bulk of people in the Autonomous Region of Bougainville want basic skills to help themselves, the Bougainville Teachers College has found", as the *Post Courier* reported on 10th July 2008. "There is demand for adult education in this village ... We have seen that many elderly people and even young people cannot read and write but they have a determination to be successful in business. A major education conference will be held in Buka Island (*the neighbouring island and gateway to Bougainville*) and it is understood adult education will feature in some of the discussions."

The situation on the island is a far cry from the former civil war that once led to everything coming to a standstill. As the newly published 2008 *Lonely Planet Guide* on Papua New Guinea states, "The name Bougainville might put a few worry lines on loved ones' faces, but the reality is a lot tamer than spring break parties at Daytona Beach. Now the most turbulent aspect of the island is its volcanic landscape."

That's why today, Undervalued-Shares.com can give you a bit of a video tour of the Panguna mine. For more than 15 years hidden deep within a "No Go Zone" set up by local militias, it is now possible (with a few local connections) to get up to the mine and shoot footage of it. Even just two or three years ago, this would have been unthinkable.

Simply watch and enjoy!

Once you are done, finish reading to learn how the investment potential of Bougainville Copper will eventually be realized.

Tourism is starting to return to Bougainville: Japanese tour Bougainville

A GROUP of Japanese tourists are touring through Bougainville.

The group is made up of two smaller groups; one of elderly men and women while the other is a younger group.

According to Lawrence Belle from the Kuri Village Resort and Member for Peit and Tonsu constituencies, the elderly group toured Tinputz while a group of young Japanese tourists went as far as Arawa and the Carterets Island group.

Mr. Belle told the Post-Courier that in the younger group there were five girls and six boys.

The elderly group is made up of five men and a woman.

Sources from Kuri Village Resort reported that the two groups are in PNG purposely to visit Japanese war remains and sites of the Second World War activities. Meanwhile, the group will be in Bougainville until Saturday, when they will fly out of the region and head back to Japan.

by LYDIA GIRANA, 27th June 2008, PNG Post Courier

The newly revised 2008 Lonely Planet Guide to Papua New Guinea recommends a tour that includes a trip all across Bougainville

The new generation at the helm of Bougainville

It's currently mere grassroots springing up, but Bougainville is clearly on the path to healing itself.

This doesn't come as a surprise, given that the next generation of Bougainvilleans has now taken the helm. It is here, where things start to get extremely interesting for Bougainville Copper.

A sad, but nonetheless quite symbolic piece of news, was the recent death of the Bougainvillean President, Joseph Kabui. He died on 7 June 2008 of a suspected heart attack. Kabui, you need to know, had been the island's Premier at the outbreak of the civil war. He later turned into a friend and supporter of Francis Ona, the island's best-known militant opponent of mining. In 2005, Kabui was elected President of the newly formed Autonomous Bougainville Government. He had recently turned pro-mining, knowing all too well that his island could only ever gain full independence and leave its destitute state behind, if the mine was put back into operation. However, he still held grudges from the past and given his past involvements, the civil war always played a role in his politics.

What Bougainville needs however, are pragmatic solutions.

With a high birth-rate and a rapidly growing population, the vast majority of Bougainvilleans is unlikely to care much about events of 10, 20 or even 30 years ago. What they instead care about, is access to clean water, health care, schooling, food, and housing. Anything that makes life on the island – which currently is one of the world's poorest and least developed places – easier.

Just watch the video footage where a local explains how he intends to rebuild and reopen the old supermarket. It will go a long way towards showing the new generation of Bougainvilleans.

Not surprisingly, the locals have started to anticipate a reopening of a mine – just like the shareholders. Even the last remaining militia men in the mountains – an army of kids to whom guarding the mine is probably more of an adventure than anything else – are now likely to be in favour of reopening the mine. They live in absolute poverty around the mine, with absolutely no improvement in their living conditions having taken place since the end of the war, 11 years ago. Chances are, they'd be favouring a return to mining if it came hand-in-hand with a development of the island's infrastructure and facilities.

The people of Bougainville might not be shareholders as such, at least not yet. But they certainly are stakeholders in the mine. And for probably the first time in 20 years, the interests of the local population are almost perfectly aligned, with the interest of Bougainville Copper.

What's more, the locals should soon become shareholders as well. But more on that later.

Joseph Kabui - Good riddance?

Some say that Joseph Kabui liked a bit of corruption. Instead of saying any more about it, I highly recommend you watch a video that has just recently become available on



YouTube. It features

what I believe is the last TV interview with Joseph Kabui, shot days before his death. It will also answer any questions that you may have, about occasional recent headlines claiming that another mining company is about to become active on Bougainville. The truth is, that Bougainville Copper owns all prospective exploration targets on the island.

Simply visit:

http://www.youtube.com/watch?v=ra6_E55OOa4

This video is well worth sitting back and watching the entire footage for 22 minutes.

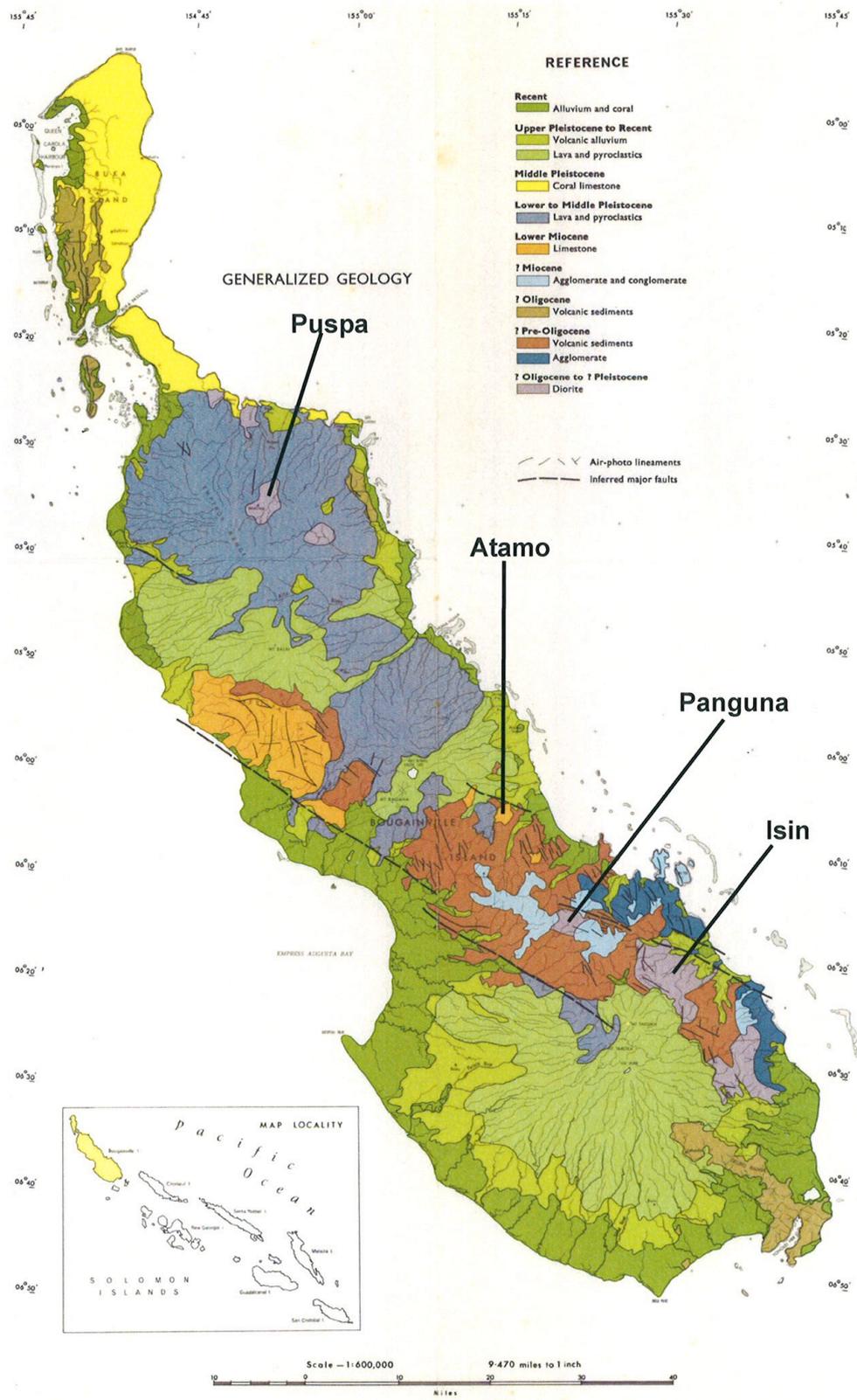


Figure 3 : Geological map of Bougainville Island

There is plenty of archive material on Bougainville's geological structure

Why August 2008 (and the remainder of the year) will be crucial for Bougainville Copper

Next month will see the finishing works on a so-called “Order of Magnitude” study aimed at reopening the mine.

I had to look up what exactly such a study entails myself. It is basically aimed at ascertaining the scale of which any operation must be, in order to be financially attractive. Or put another way, Rio Tinto wants to find out just how large a mining operation on Bougainville would have to be in order to make it financially viable. It will include rough calculations of the costs involved, and of the expected return on investment (ROI).

Getting such a study done is in itself a remarkable event.

Just three years ago, Rio Tinto did not make any kind of verbal or written commitment to ever reopen the mine. At the time, local politics were still too much of a minefield to get involved. Now, one of the world’s largest mining companies (a \$100bn giant) is having its engineers and finance people draw up a financial and technical plan for reopening a mine.

Again, it’s the big picture you need to look at. Such a study takes a few months to work out and in the meantime the share price will fluctuate a fair bit. However, the fact that such a study is being hammered out, tells you everything that you need to know about the future potential of Bougainville Copper’s share price. Never before has there been such a committed, focussed effort to get the mine back into operation. What’s more, it’s already visible that Rio Tinto is going about the project in a smart, well-planned and strategic way.

At this stage, nothing could be worse, than to simply throw another multi-billion Dollar proposal at the semi-autonomous island’s government. Instead, Rio Tinto is doing what any sane businessman would do – and playing hard to get.

If I had to take a bet, I’d say the Order of Magnitude study will show three key points:

- 1) The mine’s fundamentals are attractive enough to justify the efforts to reopen it. This point isn’t hard to guess. The mine had some of the world’s lowest production costs back in the 1980s. With the prices for copper and gold at record highs, the economics behind reopening the mine should be compelling.
- 2) Rio Tinto is ready and willing to work on reopening the mine. Despite all the troubles of the past, the mining giant wants to have a go at getting the operation back into gear.
- 3) It can be done on a smaller scale, or it could be done on a bigger scale. What’s more, there is option no. 3 where you start quite quickly on a relatively small-ish scale and then scale up the operation.

Point no. 3 is probably quite crucial. Needless to say, Rio Tinto won’t be willing to throw billions of Dollars into development projects and mining investments before some attractive terms have been agreed with the local government. That’s most likely the reason, why Rio Tinto is basing the Order of Magnitude study on an initial yearly production of 20m to 50m tons, rather than the 90m that were produced at Panguna during the late 1980s.

This is where the renegotiating of the old Bougainville Copper Agreement (BCA) comes into play. The BCA was the original contract between the national government of Papua New Guinea and Rio Tinto. It was signed back in 1967, but it has remained valid ever since. It is the legal backbone of Bougainville Copper’s mining rights on Bougainville. However, because times have moved on, it needs to be revised and updated.

E.g., at the time the BCA was primarily geared towards providing earnings for all of Papua New Guinea. The island of Bougainville received a share of the mine’s revenues too. However, Bougainville was literally only given some token revenue share while the vast majority of the government’s stake in the mine’s revenue went to the capital, Port Moresby.

What's more, the economics of mining have changed over the last few decades. Just how much of a revenue share Rio Tinto is willing and able to pay to the government, remains to be seen once the Order of Magnitude study has been published. Last but certainly not least, the 19.06% stake in Bougainville Copper that is currently held by the national government of Papua New Guinea needs to be partially transferred to the local government of Bougainville.



Port Moresby, the capital of Papua New Guinea. Despite Bougainville now being semi-independent, it still forms a part of Papua New Guinea. Full independence is unlikely to happen before 2015. That's why for the time being, it's the national government that is setting the framework for quite a few of the decisions made on Bougainville.

(photo by Axel Sturm, European Shareholders of Bougainville, <http://www.bougainville-copper.eu>)

A transfer of this stake will only happen, once the national government has gained confidence in Bougainville being able to manage its own affairs.

As a matter of fact, the national government of Papua New Guinea has defined a number of conditions for releasing Bougainville into semi-independence. One of them was, that the newly formed semi-autonomous government of Bougainville would uphold the validity of the original BCA. However, all parties involved are aware that the contract is now so old, that it needs to be revised in order to work. That's why a revised version will be worked out, with the original attached to it as supplement. Following reports in the *Post Courier*, these negotiations are actually already taking place.

Needless to say, Rio Tinto wants to be in a good negotiating position for these discussions. That's why I very much believe, that the Order of Magnitude study will focus on providing a bit of a carrot – an easy and quick restarting of the mine, with somewhat lower capital investments. Provided the local government is willing to offer Rio Tinto the right kind of conditions in the re-negotiated contract, then I am sure the Australian mining giant will be all too happy to scale up the plans. After all, such an undertaking only makes sense for a giant like Rio Tinto if it comes with a certain size.

For negotiating with the local government, giving different options and starting with a somewhat smaller scale will definitely work much better. That's because there are a couple of low-hanging fruits that the island's government by now will also be very keen on to get some benefit from. Rio Tinto is smart enough to find such common denominators, so as to gradually work its way through the process.

In the case of Bougainville Copper, this common denominator could well be the stockpiles of copper ore that is sitting next to the old mine. These stockpiles don't need to be mined anymore. It only needs to be crushed, and it can then be shipped away. If ever there was a way to get some quick cashflow, this must be it. In the past, there were rumours that "the Chinese" had already enquired about buying the existing stockpile.

Existing copper ore stockpiles stored near the mine certainly are the kind of asset that could be used to find common ground, and to then get some quick benefits from the mine for both the mining company as well as the locals. Think of some of this income being passed on to the local government to start rebuilding the island's derelict or non-existing infrastructure. Bougainville Copper had actually already set an example along that line, by agreeing to sell some of the old mine's equipment as scrap metal and funnelling the proceeds into local development projects.

It'll be what happened in Congo, only backed by an Australian mining company rather than a Chinese one. I dare say as much because it looks absolutely certain that no one but Rio Tinto would be up to the tasks that need to be done on Bougainville.

In a second, I'll show you why there is virtually no alternative, but to get Rio Tinto as the anchor investor for reviving the mining industry of Bougainville.

Why Bougainville (the island) cannot pull it off without the help of Rio Tinto

Bougainville Copper not only owns the property rights to the mine – it is also backed by the one company, Rio Tinto, which has the most in-depth knowledge of Bougainville.

Rio Tinto owns geological data that was assembled not just over years, but over decades of operating on Bougainville. As the last annual report of the company stated, a team of engineers is already pouring over the old data to see how a new mining operation could be improved.

No other mining company could offer such know-how to the island. Anyone else starting mining on Bougainville would have to start from scratch. Needless to say, Bougainville cannot afford to wait a couple of years before things are kicked back into action. The island needs investments now, and the locals have realized the urgency.

There is a very strong case for Rio Tinto being the best possible partner for the island. Some would sum it up as, “Better the devil you know.” Others would be a bit less emotional about past events from 30 years ago, and instead point out where Rio Tinto is standing today and how this could be used to the benefit of everyone on Bougainville.

Since the mine shut in 1989, mining technology has improved by leaps and bounds. This, in turn, has improved the profitability of mines. One simple but telling example is, that you can nowadays even rework the tailings of a mine (= the rock that was discarded). I

made a daring prediction back in January that Bougainville Copper would look into reprocessing the vast tailings area of the mine so as to produce yet more copper and gold. As it turned out, the annual report that was published 5 months later stated just that (you can download the annual report by visiting <http://www.bougainvillecopper.com.pg/annual2007.pdf>).

Bougainville Copper, which should actually be named Bougainville Copper & Gold because of the massive gold reserves of the mine (which at times had accounted for half of the revenues of the mine), will be an altogether different operation once it has reopened.

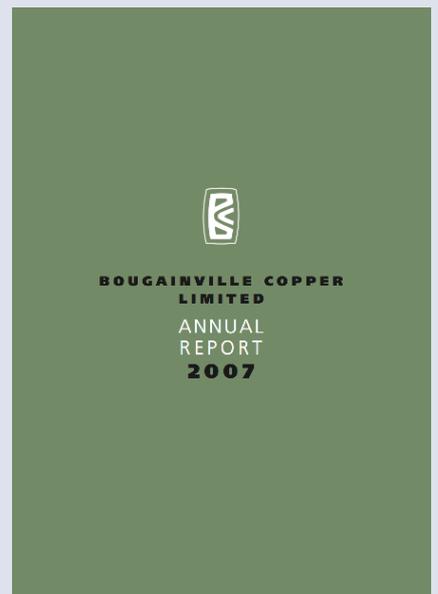
E.g., it will be a much more environmentally friendly one, simply because mining today is about mining with minimized harm to the environment. Try anything else, and you'll have the media, pressure groups and the local government breathing down your neck. That's even more true for an international mining company like Rio Tinto – the company is much too large to fly under the radar screen of the media. Luckily, Rio Tinto has long been on the case of trying to be at the very forefront of 21st century mining. It even employs an ex-university professor who is one of the world's leading experts on “no harm mining” (a yet more ambitious concept, where a mine virtually leaves no trace behind).

No wonder then, that Rio Tinto now dares to actively step out there and proclaim that it is working on reopening the mine. The timing couldn't be better, especially with the demand for copper now virtually guaranteed to stay strong for the foreseeable future.

Read the following pages to see for yourself, just how actively Rio Tinto is now working on progressing towards a reopening of the Panguna mine.

A reopening of the Panguna mine is now within reach

Back in May, the company held its shareholder meeting in Port Moresby, the capital of Papua New Guinea. Some of my German shareholder friends went over there (I had the ticket booked but had to tend to some



“It has been possible to apply new software and techniques to BCL's old data and reproduce it in a form that places BCL years ahead of any other potential developer without access to this very important data set.”

Source:
Bougainville Copper annual report 2007

urgent work back home), and they got a first-hand impression of the developments that others could only read about in a subsequent Reuters article:

Reuters – 8th May 2008 (abridged)

Rio Tinto Ltd has begun efforts to reactivate the Panguna copper mine in Papua New Guinea, almost 20 years after a secessionist rebellion forced its closure, spurred on by strong price gains for the red metal.

Rio Tinto subsidiary Bougainville Copper Pty Ltd said on Thursday it was studying a restart at a mining rate of between 20 million and 50 million tonnes of ore annually.

In 1989, the ore at the mine was estimated at 691 million tonnes, containing 0.4 percent copper and 0.47 grams of gold per tonne, making it one of the world's richest lodes.

"The company is better positioned now than at any time in the past 19 years to make a return to active exploration and profitable mining on Bougainville," the company's chairman, Peter Taylor, told the annual general meeting, according to statements lodged with the Australia Stock Exchange.

Rio Tinto, which owns 54 percent of Bougainville Copper, is "expected to finish the study in August", Taylor said.

"There are many challenges in reopening the mine, but there is also a confluence of factors today which the board considers to be favorable," he said.

"World demand for copper, particularly in China, has created an unprecedented opportunity for Bougainville to kick start its economic growth through mineral resource development," he said.

Despite walking away from operations after rebels, seeking closer ties to neighbouring Solomon Islands and a return to an agrarian society, destroyed much of the mine's infrastructure, Bougainville Copper has retained its listing on the Australian bourse.

A "mood of reconciliation" between Papua New Guinea and the local government of Bougainville was "helping discussions on regaining access to the mine", Taylor said.

One day later, the Sydney Morning Herald also gave some interesting insights into the event:

Sydney Morning Herald, 9th May 2008 (abridged)

"The chairman of Bougainville Copper, Peter Taylor said Rio's technology and innovation group last month began a study into a potential reopening The study should be completed in August."

Rio estimates it could process 20 million to 50 million tonnes of material annually from the low-grade copper and gold mine, which would produce between 80,000 and 200,000 tonnes of copper a year.

"There has not been a more favourable time since mine closure to assess the economic feasibility of restarting and operating a large copper mine on Bougainville," Mr Taylor said. "World demand for copper - particularly in China - has created an unprecedented opportunity for Bougainville to kick start its economic growth through mineral resource development."

He said the Autonomous Bougainville Government and the national Government of Papua New Guinea had made significant progress toward resolving the political and administrative issues associated with the future of mining and exploration on the island.

Mr Taylor said the mine retained 691 million tonnes of mill feed at 0.4 per cent copper and 0.47 grams per tonne of gold, and "significant infrastructure" - including an access road and port - at the site.

He said the company hoped to enjoy better community relations than it did the last time around, and noted the redevelopment would bring a wide range of business opportunities to the island. He said Bougainville Copper would this year place a priority on formal engagement with landowners and advancing the reconciliation process.

One of the key facts that Rio Tinto's executive probably has in mind, is a figure that the company's research department worked out a while ago.

Rio Tinto works on the assumption that for the next 20 years, world demand for copper will rise by an average of 4% per year. The ongoing rise of emerging markets, and particularly China, plays a key role in this development. Couple this with the fact that there are very few remaining large copper deposits that have not yet been developed – and you'll understand why Rio Tinto is willing to go through the trouble of reopening the Panguna mine.

You could even say, that due to the sheer size of the existing Panguna mine and the considerable exploration potential of the rest of the island, Bougainville Copper is a strategic asset for Rio Tinto. I wouldn't go as far as saying that it's one of the mining giant's crown jewels (at least not yet). But even for mighty Rio Tinto, getting Bougainville Copper back into gear would make a noticeable difference to the company's balance sheet.

Rio Tinto has a huge financial incentive to get the old Panguna mine up and running again. Shareholders of Bougainville Copper clearly have the expertise and the financial might of Rio Tinto on their side.

"Ian Williams has occupied a number of very senior positions within the mining and processing industries. He has a degree in Electrical Engineering and is a Fellow of the Australasian Institute of Mining and Metallurgy and of the Institution of Engineers. Currently he is Chair of the Pt. Hedland Port Authority, a Director of Brandrill Limited and a major private structural fabrication company. He is also assisting the West Australian Government in the facilitation of a privately funded major new port and rail infrastructure project in the states Mid West Region. He is also an independent director of the Aboriginal benefits trusts.

His diverse experience includes executive management of open cut and underground mining operations, brown field expansions and new major mining projects. He was responsible for the establishment of two iron mines and associated infrastructure for Hamersley Iron Ltd.

During the 1990's, as Managing Director of Century Zinc Ltd., Ian had the demanding task of establishing a new business entity and the planning and bringing on stream of the Century lead/zinc mine in northwestern Queensland. Producing some 7% of the world's demand for zinc concentrate the Century mine is equal to the world's largest. The work required a strong focus on the financial viability of the project, technical and environmental uncertainties and included the complex task of designing, getting consent to and implementing an agreement with the local Gulf Indigenous people."

Nothing could make this clearer, than the recent appointment of Ian Williams to the board of directors of Bougainville Copper. His CV makes for such interesting reading, that I shall pass it on to you in full.



Despite recent economic woes around the planet, the copper price has been staying near record levels.

Clearly, he's the kind of guy that you'd want to have working on your behalf.

Bougainville Copper will soon become a mainstream media story

Never one to turn down a challenge, I have been reporting about Bougainville Copper ever since the first vague signs for a revival of the mine became visible.

Because information about some aspects was hard or even impossible to come, I often had to fill in gaps by making an informed guess. However, things have now progressed to a state where a lot of the gaps have already been filled in. Material from archives, in particular, proved to be extremely useful for analyzing the company.

What's needed now, to spark the next phase of the share's multi-year ascent, are some official figures about the investment that is needed for restarting the mine and the potential return.

That's why the Order of Magnitude study, with its initial assessment of these questions, will be so valuable.

As a side benefit, the publication of this study will also lead to another important development. The media will catch on to the fact that reopening the Panguna mining (and generally starting some sensible economic development on Bougainville), isn't a mere pipedream. It's actually being worked on already, and by some extremely experienced people who have the backing of a company that can easily afford to invest large sums of money into the project.

All this, and more, will soon move into the mainstream media. And if ever there has been a story that is fit to make it onto the cover page of the Wall Street Journal, this surely must be it.

What's in it for shareholders?

As entertaining as the entire story is, at the end of the day it's all the investment potential that truly counts. For me, Bougainville Copper is a classic case of an asymmetrical risk/reward ratio – caused by a lack of transparency.

There are two possible ways to approach this opportunity. One is, to work out an elaborate valuation model that looks at the potential future production of the mine. That's what I did back in December 2007 and you can see the result of it on page 72 of my original Bougainville Copper report.

My report led to quite a number of shareholders getting in touch with me, and I was surprised how many mining-buffs have already taken a stake in the company. E.g., one of my readers, geologist Steve Bornain

Kampf um die Schatzinsel
Die Rückkehr nach Abensberg...
Die Rückkehr nach Abensberg...
Die Rückkehr nach Abensberg...

Revolutionäre, Solider, Spekulationen
Die Rückkehr nach Abensberg...
Die Rückkehr nach Abensberg...
Die Rückkehr nach Abensberg...

Im Bürgerkrieg um Bougainville starben bis zum Friedensvertrag 15000 bis 20000 Menschen
Die Rückkehr nach Abensberg...
Die Rückkehr nach Abensberg...
Die Rückkehr nach Abensberg...

Schatzkarte
Wo die weltweit wichtigsten Kupfer-Kupfer-Vorkommen liegen und wem sie gehören
Die Rückkehr nach Abensberg...
Die Rückkehr nach Abensberg...
Die Rückkehr nach Abensberg...

German business weekly, *Wirtschaftswoche*, published a 3-page story on Bougainville Copper back in May.

from Luxembourg, agreed to work out a brief geological assessment of the Panguna mine as well as the other exploration areas on Bougainville. You can find his entire report in the appendix of this file (see page 19).

Judging from Steve's work, Bougainville Copper has the potential to massively increase its proven copper reserves by carrying out more exploration work in the area around Atamo, to the North-East of the Panguna mine. You need to know that Steve has previously worked on a geological report for the Government of Luxembourg. It turns out that there is an old copper mine in the tiny Principality, and he was asked to make a recommendation about whether it'd be worthwhile to reopen the old mine (funnily located enough in a small town called Bigonville). When it comes to reopening old copper mines, Steve is a guy to listen to.

Needless to say, aspects such as potential resource finds in the Atamo area are quite some way into the future. Also, there never is a guarantee that every aspect will play out as predicted. E.g., another geologist that I asked to take a quick look at Steve's report disagreed with some of the assumptions made – proving the old adage that when you ask two experts, you get three opinions!

At the end of the day, it'd take a crystal ball to always get everything 100% right. E.g., after my last report I learned that my prediction about the open pit Panguna mine possibly being extended into an underground mine, was probably premature (at least unless technology progresses further). Not being right in every single respect, is part of the daily routine of an investor. What's more important than being 100% right, is to have a margin of safety built into an investment – so that even when you are only 80% right, you still make money.

That's why I prefer to invest in shares where I have a high degree of certainty that what I am buying into, is already worth much more today than the share price suggests.

Also, the more complex a valuation model, the easier it is to manipulate figures up or down. My investment banking friends tend to push me towards writing elaborate valuation models. However, I personally quite like the simplicity of the 10% rule of thumb that I have told you about earlier. In mining circles, it is a well-established rule that proven reserves can be valued at about 10% of their eventual market value. (This rule is used for valuing commodities reserves that are proven, but for which no mining or production facilities have yet been built.)

On the basis of this rule of thumb, even just the Panguna mine's proven reserves are worth about A\$8 per Bougainville shares. This compares to the current share price of A\$1. The beauty of this valuation model lies in the fact, that it's virtually impossible to manipulate any figures. You can read up on the 10% rule in some of the standard books about the resource industry.

Combine this with the fact that the company has secure titles to the assets, and that the company has about A\$80m (US\$76m) in net cash reserves. Not only is the upside huge, it's also fairly hard to see any major downside risks. After surviving nearly 20 years of mine closure, a civil war, and an initially painfully slow reconciliation process, it seems safe to say that this company is virtually indestructible.

Name	Bougainville Copper Ltd.
Major shareholders	Rio Tinto (53.58%), Papua New Guinea (19.06%), free float (27.36%, of which >4% is represented through the European Shareholders of Bougainville Copper)
Stock markets	Sydney (Ordinary Shares), Berlin, Frankfurt, Munich, Stuttgart (Ordinary Shares and ADRs) US OTC Market (ADRs)
Ticker symbols	Sydney: "BOC" Germany: WKN 852 652 (Ordinary Shares) and WKN 867 948 (ADRs) USA: "BOCOF" (Ordinary Shares) and "BOCOY" (ADRs)
Outstanding shares	401,062,500
Share Price	A\$1
Market Cap	A\$401m
Market Cap of Free Float	A\$110m
Company web site	www.bougainvillecopper.com.pg

Low downside, huge upside... Whilst there is no guarantee for anything in life, this is the basic formula for landing a serious investment coup. On that might lead to such a profitable payday, that a single small investment could make your entire portfolio grow considerably in size.

What's more, this is now an investment with a much more defined timeframe. Thanks to the company's recent announcements, we now know for sure when to expect progress. It's only about four weeks, before an important new milestone will be reached – the Order of Magnitude study that will most likely prove to be the crucial document for reopening the mine.

Anyone invested into Bougainville Copper has an interesting August to look forward to. Whether you are a short-term trading or a longer-term investor, the remainder of 2008 could turn out be the most important period for Bougainville Copper in a long time.

And from there onwards, it's likely that nothing can stop Bougainville Copper. That's likely to be good news for those, who had access to the right kind of information and acted on it. Those who simply know, that you have to get in early when there are still uncertainties and when you get a chance to pick up shares at a bargain price.

Everyone else, is likely to eventually look back in a few years – and wonder just how they could have missed such a ground-floor opportunity.



Sven Lorenz



I keep an entire stash of Bougainville Copper archive material, such as this hard-to-find operating manual of the mine's original power plant.

Appendix:

Geological report by Steve Bornain

Questions and answers from the 8th May 2008 shareholders meeting

(courtesy of European Shareholder Association of Bougainville, <http://www.bougainville-copper.eu>)

Valuation model from original December 2007 report (extract)

Practicability of mining development in the region of Atamo, Bougainville Island, Papua New Guinea.

by Dr. S. Bornain

Consultant Geologist for Undervalued Shares – A Globetrotter's Personal Investment Diary

Abstract

The Bougainville Island is known for its important copper mine located around of Panguna. After a lot of difficulties procreated by the climate of civil war, the government decided on the reopening of the Panguna copper mine.

This last appears still exploitable and very lucrative (life of 15 years) and the idea of transforming it this open pit mine into underground mine to augment the quantities of ore deposits is more and more envisaged.

Interest also carries on the possibility of exploiting other sites on which geological, geophysical and geochemical anomalies had been pointed out during previous exploration campaigns. The Atamo's site appears as the small brother of Panguna. The quantities of ore deposits estimated correspond to more than half of those of Panguna. Finally, other sites in the North and in the South of Panguna (sites of Puspa, Isin and Deuro Range) also have a not negligible potential to receive a future mining development.

1. Short historical recall of mining activity on the Panguna site.

Panguna is the zone in which the mining exploitation is the most developing of the Bougainville Island in eastern of Papua New Guinea. To be able to complete successfully this extraction, a city completely as well as roads and a harbour were constructed before even the opening of the mine.

The exploitation properly speaking started in 1972 and ended in 1989 further to numerous brawls with the local armed militias.

Estimates of copper quantities were in 1972 in the order of *994 mt*. It was exploited until 1989, *700 mt* of copper ore deposit, *3 mt* of copper metal, *306 tonnes* of gold and *784 tonnes* of silver.

The experts predict that the site of Panguna, such as it appears today, can again provide 690 mt of copper ore deposit and survive about fifteen years.

The system of mineralization present at Panguna corresponds to a porphyry copper. It is interesting to remind of the definition of porphyry copper: « deposit of copper located in an intrusion porphyry granodiorite of the recent volcanic chains. The ore with low content (0.5 - 1.5 % Cu) comes in form of spreads and in stockwerks. The tonnages of these deposits are counted by hundred of million tonnes ».

The geometric structure of a porphyry copper is *tree type*. This means that the more the depth augments, more ore deposit is localised in the vicinity of the trunk of the deposit and more there is ore.

The mine nowadays known in Panguna attained borders of stability of its mountainsides.

In effect, an open pit exploitation can attain a 800-metre depth at the farthest in optimum conditions for rocks. For Panguna, the depth is 500 metres.

It is planned to take back working in a different way to extract the maximum of ore deposits: the open pit be going to be transformed into underground mine with bet works of whole technical logistics to come out again the ore deposits.

It is important to underline that in 1972, techniques relating to working were very far from what they know in present time. It is since then more impossible to accomplish a colossal underground mine (for example copper mines in Katanga, Congo).

From geological point of view, Boungaiville Island is part of a complex Cainozoic volcanic arc rising 11250 m above the New Britain deep and comprises a late Miocene to early Pliocene calc-alkaline suite of volcanics which are mainly andesitic with minor basalt and dacite. These are intruded by diorite, granodiorite, monzonite, syenite and granophyre of late Eocene to Recent ages.

The Panguna ore deposit is related to an intermediate complex intruding the late Eocene to early Pliocene Kieta Volcanics. The hydrothermal system embracing the orebody is located on the southern edge of the 4 km wide Kawerong Quartz Diorite intrusive complex.

The rocks within the mine area include the:

Panguna Andesite – of the Kieta Volcanics which is the main extrusive in the mine. It is flat lying, predominantly an agglomerate which becomes less agglomeratic with depth, but more welded, fractured and propylitically altered.

Kawerong Quartz Diorite – is represented by a series of lithologies in the main orebody area, including:

- *Biotite Diorite* which surrounds the Biotite Granodiorite and “Feldspar Porphyry” is a more potassic altered variety of the main Kawerong Quartz Diorite and carries much of the mineralization, and is more brecciated with depth
- *Leucocratic Quartz Diorite* is a later intrusive phase which occurs on the southern margin of the main intrusive mass, contains more intense quartz veining and is more siliceous than the Biotite Diorite.
- *Biotite Granodiorite and “Feldspar Porphyry”* which occupy the low grade central core of the orebody, are subsequent to the Leucocratic Quartz Diorite and vary from each other only in degree of alteration and texture
- *Biuro Granodiorite* is only weakly mineralised where it occurs on the western side of the orebody and as dykes which dilute the ore
- *Breccias* are found as intrusive, collapse and tectonic breccias and cut most of the main intrusive phases described above.

The **alteration** of the orebody is developed as follows:

- *Potassic alteration* is closely associated with the best mineralization and is found in areas of >0.5% Cu, particularly in the Panguna Andesite, Biotite Diorite and Leucocratic Quartz Diorite
- *Propylitic alteration* is dominant in areas of <0.3% Cu, where chlorite is > biotite and pyrite > chalcopyrite
- *Argillic alteration* is widespread but weakly developed, overprints potassic and propylitic phases and is characterised by clay and disseminated pyrite
- *Phyllic alteration* is irregularly developed with sericite, silica and pyrite and overprints other alteration in all rocks types
- *Gypsum and minor anhydrite* occurs in joints and microfractures below about 150 m from the uppermost benches.

Copper and gold mineralization forms an annular zone of higher grade surrounding a low grade core, and weakens out directions.

Mineralisation was developed as follows:

1. Early pyrite in the Kawerong Quartz Diorite
2. Chalcopyrite and gold associated with hydrothermal biotite in the Biotite Diorite and Panguna Andesite
3. Intense quartz veining with chalcopyrite and bornite accompanied the subsequently intruded Leucocratic Quartz Diorite stronger zone of Cu-Au mineralisation in the south of the ore zone annulus.
4. Chalcopyrite and pyrite, with small areas of high grade Cu (disseminated chalcopyrite and bornite) accompanied the Biotite which intruded and partly replaced the mineralised biotite diorite.
5. Pyrite on joints with phyllic selvages occurs irregularly through all rocks in the system, except late andesite dykes

2. The Atamo Area.

The purpose of this study is to provide the necessary elements to estimate mining potential in the Atamo Area. Firstly, a geological description of the zone will be approached. Then, geophysical study will be explained and some data of structural geology will be provided.

The Atamo Area is located in the north of Panguna. The geomorphology of this zone is similar in that met on the mining site of Panguna: volcanic cones, abrupt mountainsides, very snaky roads.

From the geological point of view, Atamo is characterized by the microdiorite showing variable grain size and surrounded by hornfels, intrudes the pillow lavas of the Kieta Volcanics.

The Kieta Volcanics in the Atamo area consist of a series of pillow lavas and associated intrusives (plutonic rocks and dykes), andesites and tuffs. The fossils in the calcareous matrix of the pillow lavas yield a probable middle to late Eocene age.

In the southern part of the valley, the tuffs dip 45° towards 180°, and landslides tend to be very common.

Volcanolithic conglomerate, consisting of fragments of pillows and with a calcareous matrix, comparable with the Miocene conglomerates on Mt Takoppor (Wakunai), overlies tuffs and pillows of the Kieta Volcanics and passes into a sequence of Keriaka Limestone. The latter is generally reefal and lagoonal, and locally dips 30° towards 150°. The microdiorites mentioned above lie in the centre of the valley and form an elevated area which the two main rivers, the Kwin in the west and the Bitero in the east, flow around. The sides of the main valley are made up of the above sequence. The Keriaka Limestone more or less completely surrounds the Atamo valley and is overlain in the NW by agglomerates and tuffs of unknown age. Small dykes and plugs of quartz-plagioclase porphyry occur along the sides of the valley almost equidistant from the centre, and cut the Kieta Volcanics and Keriaka Limestone. Figures 1 and 2 show the stratigraphy and the structure of the area.

The Atamo valley is interpreted as an explosion caldera. The concentric shell structure of the microdiorite in the centre suggests that it may have been produced by the cooling at shallow level of a volcanic pipe, whereas the quartz-plagioclase porphyries are located at the intersections of ring and radial fractures.

A geophysical profile was set out in the middle of the valley in the form of a cross (figure 2). The western and southern axes of the cross were situated entirely on the microdiorite, while the northern and eastern axes extend beyond the microdiorite into hornfels and pillow lavas.

Significant anomalies were measured over the microdiorite area. It is possible that late, magnetite-rich differentiates have taken advantage of the concentric structure of the microdiorite and intruded between the individual shells. This is suggested by the coincidence of magnetic anomalies with these positions as characterised by the morphology.

It appears apparently on the geological map that the Atamo Area is characterized by a system of fractures with NNW-SSE orientation. This system can play an important role in the dispersion of mineralized fluid and since then influence the expanse of the ore deposit.

3. Common points between Panguna and Atamo.

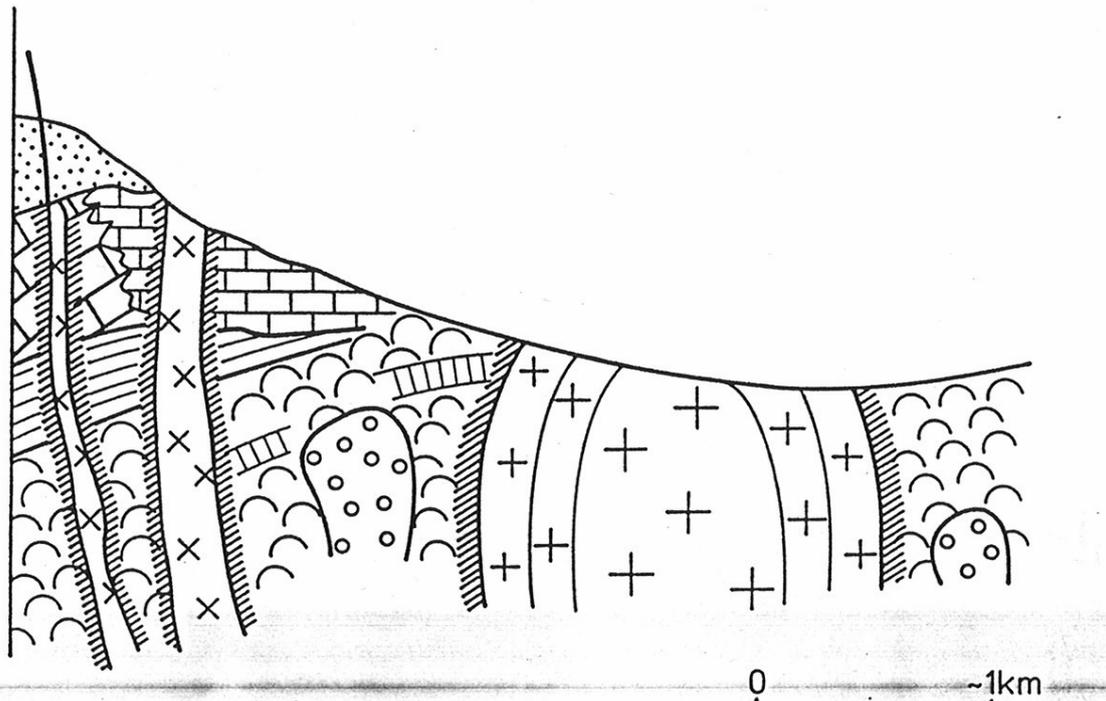
In this paragraph, the different common points between both sites are going to be approached.

1. The lithology in which copper and gold mineralization, for the zone of Panguna, meet is characterized by a dioritic rock defining the copper porphyry.

For Atamo, the present intrusion in the centre of the valley is a microdiorite. Besides, the series of rocks is identical for Panguna and Atamo: it is the rock series called Kieta Volcanics.

2. The structure of intrusion for the Panguna site is annular. The same geometric form meets for Atamo and was put in an obvious place by the different geophysical profiles accomplished above this region.

3. An important fractures network is present in the zone of Panguna with a main fault (Figure 3). Atamo present also a well developed fractures network which must have favoured the progress of mineralized fluid and the extension of the copper-gold deposits.



Key:

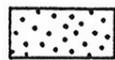
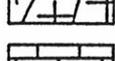
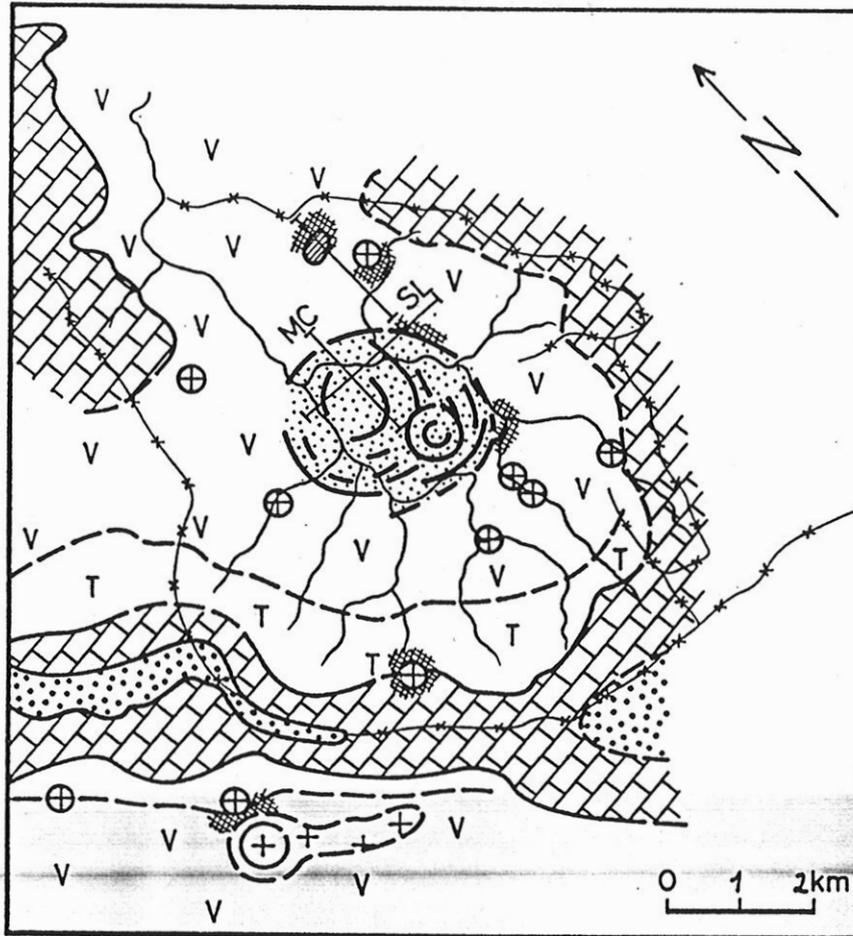
	Agglomerate & Tuff	
	Hornfels	
	Qtz - Pl - Porphyry	} Late intrusives
	Microdiorite	
	Lagunal Limestone	} Keriaka Limestone
	Reefal Limestone	
	Tuff	} Kieta volcanics
	Pillowlavas + Flows	
	Intrusive Diorite/Gabbro	
	Ring fracture	

Figure 1 : Stratigraphy of the Atamo Area



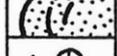
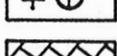
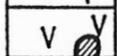
-  Agglomerate
-  Hornfels
-  Microdiorite
-  Quartz - Plagioclase porphyric intrusion
-  Keriaka Limestone
-  Kieta Tuffs
-  Kieta Pillows(+intrusions)
-  Geophysics profile
MC = Main Cross
SL = Side Line
-  River
-  Ridge

Figure 2 : Interpreted geology of the Atamo Area based on airphotograph interpretation and traversing. Location of geophysical profile is also shown

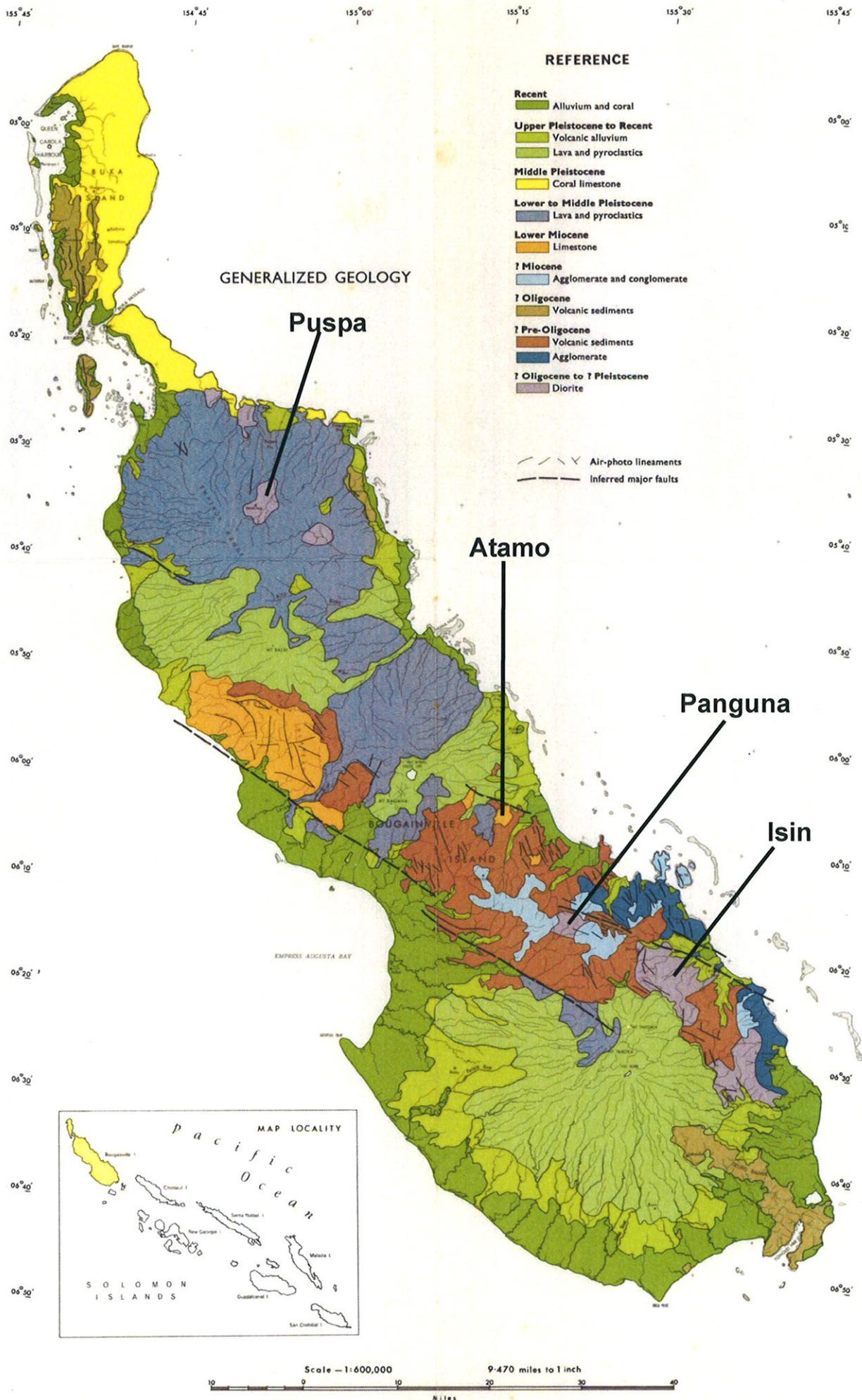


Figure 3 : Geological map of Bougainville Island

4. Practicability of mining exploitation in the Atamo Area.

The estimate of resources in the Atamo zone is based on the reading of the geological map of Bougainville Island. Above, some different common points were listed and give a good idea of importance which the Atamo zone can play in the mining development of the island.

The dimensions of the Panguna Mine can be approached by being based on the mapping of the present diorite in this zone: **3 * 3 km**.

For Atamo, the diorite does not appear on the geological map because it is located on one hand in a cashed valley covered by training Keriaka Limestone and on the other hand the scale of the geological map is too important in comparison with the dimensions of studied structures.

On the figures 1 and 2, it is possible to size the surface of the diorite: **2.5 * 2 km**.

As a result the present diorite in the Atamo zone has a superior area of more than half of Panguna = resources for the copper ore deposit between 500 and 600 mt (9km² for Panguna and 5 km² for Atamo).

From the point of view of the depth of mineralization, this last can be estimated as identical because having the same type of rock (diorite) in both zones: the copper porphyries with the copper and gold mineralisations will be similar.

It was signalled the presence of limestone in the Atamo Area (main rock of this zone). This limestone can be exploited, extracted, treated and sold retail also as stones of decorating, or stones of building.

It means that to attain a reasonable area for the exploitation of the diorite (rock containing copper and gold), limestone will also be able to contribute to the progress of benefits procreated by the mining development of the Atamo Area.

5. Other mining resources on the Bougainville Island.

During previous geological, geophysical and geochemical studies led on the Bougainville Island, a lot of zones with anomalies were put in an obvious place. These zones show high concentration in copper, gold, silver, tellium and zinc. These different areas are taken back on the figure 4.

The Panguna Mine appears in the centre of the island. *The Atamo Area*, one more in the North, is also pointed out as important source of ore deposits.

Before continuing the listing of the potential sites, it is interesting to analyse the geological map of Bougainville.

It was represented that the rock introducing the most lucrative ore deposits is called diorite. This diorite meets in various places, sometimes outcrop, sometimes hidden under a younger rocky coverage.

It is apparently visible that sites raised during the campaigns of exploration become localized close to this dioritic rock. It is case for the *Puspa* and *Isin Areas*.

The south zone Ramazon River is also present but the measured quantities for the ore deposits are deficient for the establishment of a future mine.

The zone Deuro Range is underlined by silver, gold and tellium well brought up concentrations.

This zone is since then exploitable while knowing that the present copper in this zone is in sparseness because the rock in presence is not a diorite but rather volcanic sediments.

The North of the island appears according to different studies as a sterile area of any exploitable mineralization.

6. Conclusion.

In the course of this short geological analysis of the Bougainville Island, it appeared that the Panguna mining site can again be an important domain in the mining extraction.

Not to close this exploitation in about fifteen years, time estimated to exploit the entirety of the ore deposits, it is this day to plan to continue working in depth *by transforming open pit mine in an underground mine*.

The resources will since then be much more important because the geometry of the porphyry ore deposit can be compared with a tree, where in surface there are branches and in depth trunk.

The detailed study of the geological map profiles showed that the Atamo Area can also pretend to receive a large-scale exploitation.

The available quantity of copper and gold can be approached by similarity with the Panguna site. Study shows that the *Atamo zone could give an identical quantity in more than half of Panguna (between 500 and 600 mt copper ore deposit)*.

Different other mining sites exist on this island. It is about the site of *Puspa* and *Isin* and *Deuro Range site*. This last will be able to be exploited for the quantities of silver, gold and of tellium which it conceals.

Questions and Proposals of the ESBC Concerning the Annual General Meeting 2008.
Fragen und Anregungen des ESBC zur Hauptversammlung 2008.

On May 8th, 2008 the Annual General Meeting (AGM) of Bougainville Copper Ltd. will be held at 2:00 pm in the Hotel Crowne Plaza in Port Moresby (Papua New Guinea). The European Shareholders prepared a catalogue of questions to the board of directors that had been sent to the chairman, Mr. Peter Taylor, and the company secretary, Mr. Paul Coleman, on April 1st, 2008 by email. We asked the board to provide us written answers.

These answers have been given to us on Monday, May 19th, 2008 and are marked in GREEN.

Am 8. May 2008 wird die Hauptversammlung (HV) 2008 der Bougainville Copper Ltd. um 14:00 Uhr im Hotel Crowne Plaza in Port Moresby (Papua Neuguinea) abgehalten werden. Die European Shareholder haben einen Katalog von Fragen an den Vorstand entwickelt, der dem Vorstandsvorsitzenden, Mr. Peter Taylor, und dem Company Secretary, Mr. Paul Coleman, am 1. April 2008 per Email übermittelt wurde. Wir baten den Vorstand darum, uns unsere Fragen schriftlich zu beantworten.

1)

During the 2007 AGM Peter Taylor announced a 3-year plan for the re-opening of the Panguna Mine. Given today's status quo, is everything pretty much in line with the assumptions and plans made by the company back then or do you see things moving slower or maybe even faster than anticipated?

Auf der Hauptversammlung im Mai 2007 hat BCL-Chairman Peter Taylor einen 3-Jahres-Plan angekündigt, der die Wiedereröffnung der Mine zum Ziel hat. Entspricht der heutige Fortschritt der Dinge den damaligen Planungen? Geht es schneller oder langsamer voran als geplant?

For the sake of more clarity and visibility of the process, the ESBC would be grateful to be receive more detailed information on which steps the company will undertake going forward in the pursuit of finally re-opening of the mine. Zum besseren Verständnis bitten die ESBC den Vorstand, allen Aktionären einen detaillierten Stufenplan vorzulegen, in welchem die einzelnen Schritte zur Erreichung dieses Zieles beschrieben werden.

ANSWER of BCL:

Dialogue has been continuing with all stakeholders and the reconciliation process is ongoing. The Autonomous Bougainville Government (ABG) and the National Government have signed a memorandum of understanding that includes agreement to address the Bougainville Copper Agreement As part of the 3 year plan BCL is undertaking an order of magnitude study to address the technical and financial viability of a future mining operation. The Chairman's presentation at the annual general meeting provides more information of this study. Notwithstanding the progress of the plan, however, it is important to note that no decision has been made to reopen the mine.

2)

What are your current estimations in terms of the costs for re-opening the mine? Regardless of the final figure, how would the company finance the required investment? Can you already tell us if you consider using the credit markets or rather issue new shares to raise the cash?

Wie hoch schätzt BCL den Finanzbedarf für eine Wiedereröffnung der Pangunamine ein?

Wie soll die Finanzierung erfolgen?

Sieht die derzeitige Finanzplanung Kreditaufnahmen oder eine Kapitalerhöhung vor?

ANSWER of BCL:

The current studies being undertaken will give us a better understanding of the likely cost of re-opening the mine for a range of production levels, were a decision be made to do so. No decision has been made on redevelopment financing but at the appropriate time the full range of financing options will be studied.

3)

The ESBC would like to ask the Board to further intensify its IR and general PR. The European shareholders would also like to suggest an improved information service run by the company, such as a newsletter service to all registered people which could be made available via the company's website. Overall, it is the ESBC's impression that as of today the company could improve its communication by communicating more pro-actively and by also updating more regularly the markets about the progress of the 3-year plan.

Die ESBC bitten den Vorstand, die Öffentlichkeitsarbeit des Unternehmens zukünftig zu intensivieren. Die Europäischen Aktionäre möchten gerne zeitnah durch einen Informationsservice (z.B. Newsletter) informiert werden. Jedwede Fortschritte aber auch Rückschläge im Erreichen des Zieles sollten sowohl der ASX als auch der Presse per ad-hoc-Meldung unmittelbar zugeleitet werden.

Die ESBC halten es zudem für erforderlich, auf der BCL Homepage eine Möglichkeit zu schaffen, unter der ein solcher Newsletter angefordert werden kann.

ANSWER of BCL:

In the past year the Board has appointed a media consultant to assist with public relations and the dissemination of information. The company is obliged to comply with the Australian Stock Exchange (ASX) listing rules which govern how and what information the company can disseminate. Under the "Continuous Disclosure" requirements the company lodges significant announcements with the ASX and the ASX is linked to the company web site.

4)

The local press recently reported on the disposal of scrap from the Panguna mine area. Could you please comment if this happened on behalf of the company or if this activity represented an illegal action by local people living in the area.

In der örtlichen Presse wurde unlängst über die Entsorgung von Schrott vom Gelände der Panguna Mine berichtet. Handelt es sich dabei um ein widerrechtliches Entfernen von Eigentum der Bougainville Copper Ltd. oder um eine erste Aufräumaktion in Absprache mit BCL?

ANSWER of BCL:

The company has taken direct intervention where possible and legal action on a number of occasions over the past few years to prevent the theft and unauthorised sale of its property. The company has agreed to the sale of scrap, in conjunction with local groups, on the understanding the proceeds will be used for community work and in particular assist with reconciliation efforts.

5)

What is the Board's position on how the illegal digging for gold and other minerals in the Panguna mine area can be stopped and also how -once mining has officially been resumed by BCL- the environmental damages caused by the use of quicksilver can be reduced?

Welche Möglichkeiten sieht der Vorstand, das derzeitige wilde Schürfen sowie die weitere Beeinträchtigung der Umwelt durch den Einsatz von Quecksilber als Scheidemedium zu unterbinden bzw. zu reduzieren?

ANSWER of BCL:

The Board's main concern is for the environment and the safety of the people involved but without access to the area the company cannot assess the situation or takes steps to mitigate problems.

6)

Could you please let us know if the company has a „master plan“ of how the company will remedy all the environmental damages that resulted from the operation of the Panguna mine prior to its closure in 1989? How are you going to address these environmental issues? Have you already conducted discussions and studies on a „best practice“ solution with companies specialised in this area of business? What is the current cost estimate for all actions needed in this context? Are these costs included in the 1 to 1.5b USD estimate for the re-opening of the mine, with this 1 – 1.5 billion USD the figure most often rumoured to be the cost of re-opening the Panguna mine.

Gibt es schon einen Masterplan mit dem Ziel, die Umweltschäden, die in Folge der ungeordneten Minenschließung entstanden sind, effizient und nachhaltig zu beseitigen? Welche Techniken könnten zum Einsatz kommen? Wurden schon Unternehmen, die auf die Beseitigung von Umweltschäden spezialisiert sind, kontaktiert und konsultiert? Gibt es schon grobe Schätzungen über die in diesem Zusammenhang anfallenden Kosten? Wenn ja: sind diese schon in den oft zitierten 1 – 1,5 Milliarden USD, die für die Wiedereröffnung notwendig sein sollen, enthalten?

ANSWER of BCL:

I have made it publicly known over a number of years that the company would like to undertake an environmental and safety audit of the mine site. Such an audit is be an essential pre-requisite to future onsite development activities. The company has not been permitted access for this or any other purpose. In studies currently being planned will look at “best practice” environment options and landowners and government agencies will be consulted to determine what their preferred outcomes are.

7)

Has BCL secured the availability of all the equipment needed for the re-opening and operation of the mine? Do contracts/letter of intents with manufacturers already exist? Would Rio Tinto be in the position to make all required equipment available in time for the re-opening?

Hat BCL schon mit Herstellern schweren Schürf- und Verarbeitungsgerät Kontakt aufgenommen und/oder Optionen für die Lieferung solcher Spezialausrüstungen abgeschlossen oder aber entsprechende Gespräche mit Rio Tinto geführt, die im Zusammenhang mit der möglichen Überlassung solcher Gerätschaften durch RT stehen?

ANSWER of BCL:

BCL has not secured any new equipment that might be needed to reopen the mine. At this stage it does not know what equipment it might need. There is a lot of work to be done on establishing the optimum mine plan. There is also the need to consult extensively with landowners and regulators once mine plan options have been developed. I cannot speak for Rio Tinto or any other shareholder.

8)

The World Bank has made it clear that it is in their interest to support the development in the region. Have there been talks between BCL and the World Bank? If so, what has been discussed and have agreements been made that you could let

us know about, today?

Hat BCL schon informelle Gespräche mit der Weltbank geführt? Diese ist bekanntlich daran interessiert, die Entwicklung der Region mit finanziellen Mitteln zu unterstützen?

ANSWER of BCL:

BCL and the World Bank consult from time to time on a range of matters but there are no agreements between the Bank and BCL.

9)

Has the Board considered to purchase the Panguna area from the Government and to establish a free-trade zone within it?

Hat der Vorstand schon die Möglichkeit erwogen, das Panguna Gebiet käuflich zu erwerben, um dieses dann in Absprache mit der Regierung als eine Art Freihandelszone zu betreiben?

ANSWER of BCL:

No.

10)

Provided that the objective of the re-opening of the Panguna mine cannot be achieved within the next 2 years, does the Board have plans to make use of the other licenses held by the company and to open another mine on the Island, for example in the Atamo area?

Sollte es aufgrund äußerer Umstände nicht innerhalb der nächsten zwei Jahre möglich sein, die Wiedereröffnung der Pangunamine zu erreichen: Gibt es schon Überlegungen in denjenigen Gebieten Bougainvilles, in denen BCL weitere Lizenzen hält, wie etwa Atamo, eine neue Förderstätte zu öffnen?

ANSWER of BCL:

The three year plan does not envisage the mine will open during its term. There are many matters to be agreed with landowners and Governments before even

the planning stage can be completed. Any “Greenfield” development on yet to be explored tenements is likely to take even longer. There is currently a moratorium on new exploration on Bougainville so no new development is currently possible.

11)

If the re-opening of the Panguna mine is unlikely in the foreseeable future and if new mines are also not a feasible option in the next few years, would the company consider selling the mining licenses it currently holds?

Falls es in absehbarer Zukunft nicht zur Wiedereröffnung der Pangunamine kommen sollte und/oder keine weiteren Förderstätten erschließbar sind: Denkt BCL auch darüber nach die eine oder andere der Lizenzen zu verkaufen?

Has the Board been recently approached by third parties showing in interest in buying some or all of the BCL licenses? If so, can you please let us know which price has been offered?

Hat es in jüngerer Vergangenheit Kaufangebote für einzelne BCL-Lizenzen gegeben? Wenn ja: zu welchem Preis?

ANSWER of BCL:

The Board has no plans to sell its Bougainville tenements.

There have been no recent approaches from third parties wanting to buy the leases.

12)

With the ongoing uncertainties and challenges in the political and infrastructural landscape of Bougainville, wouldn't it make sense for the company to consider starting mining activities in other parts of the world such as South America, Australia, Africa or even PNG?

We at the ESBC believe that the company's sole focus on Bougainville makes it unnecessarily vulnerable toward adverse impacts of those people opposing mining on the island of Bougainville. We would like the Board to elaborate on plans to invest in other parts of the world in order to secure the company's future and to create sustainable and more reliable and predictable shareholder value.

Warum macht sich BCL nicht unabhängig von der Unberechenbarkeit der politischen und infrastrukturellen Gegebenheiten auf der Insel Bougainville und bemüht sich nicht um Ressourcen in anderen Regionen der Welt wie etwa in Südamerika, Australien; Afrika etc.? Selbst eine Aufnahme von Miningaktivitäten in PNG selbst wäre denkbar.

Nach Auffassung der ESBC macht die selbst gewählte, einseitige Abhängigkeit von der Insel Bougainville das Unternehmen BCL allzu anfällig für Einflüsse seitens vereinzelter Mininggegner. Die ESBC fordern den Vorstand deshalb auf, alle Möglichkeiten zu überprüfen, die zu fruchtbaren Investments auch in anderen Regionen führen könnten.

ANSWER of BCL:

The company was set up to mine the Panguna ore body and any competitive advantage it may have is its understanding of that ore body. The Board has considered a range of alternative investments and has agreed its main focus should be Panguna and the Bougainville exploration tenements.

13)

What are the consequences for BCL of a potential acquisition of Rio Tinto by BHP Billiton?

Welches Szenario könnte sich für BCL ergeben, sollte es zwischen BHP Billiton und Rio Tinto zu einem Zusammenschluss kommen oder aber Rio Tinto von BHP Billiton übernommen werden sollte?

ANSWER of BCL:

This is a matter for BCL's shareholders and not its

14)

Rio Tinto's CEO, Mr. Tom Albanese, recently confirmed discussions with companies in China . Could you please let us know if BCL is directly or in-directly effected by these on-going discussions and if so, in which way?

Ist BCL in irgendeiner Weise von den Kooperationsbemühungen von Rio Tinto CEO Tom Albanese in China direkt oder indirekt betroffen? Wenn ja, in welchem Umfang?

ANSWER of BCL:

The Board is not privy to any discussions Mr. Albanese may have had in China.

15)

Could you please let us know the latest status in the tax dispute between the PNG government and BCL?

Gibt es Neuigkeiten im Steuerstreit zwischen PNG und BCL?

ANSWER of BCL:

Information on this matter is contained in the Chairman's statement and the Annual report. The current situation is that some of BCL's objections to a number of tax assessments were rejected by the Internal Revenue Commission [IRC] and BCL has

appealed those decisions to the National Court. BCL is acting on legal advice that its appeals have merit. No date has been set for hearing BCL's appeal.

16)

Hat BCL Hochrechnungen angestellt über die Rentabilität der Pangunamine auf der Basis heutiger Rohstoffpreise und Förderungskosten? Wenn ja, wie lautet das Ergebnis.

Given the increase in commodity prices since the closure of the mine in 1989, could you please share with us the results of your analysis of the Panguna mine's profitability based on today's commodity prices as well as today's costs of operating the mine? Thank you!

ANSWER of BCL:

That information is not yet available. The studies currently being undertaken will look at a range of projected long term metal prices.

17)

Hat BCL Erkenntnisse darüber, ob neben Kupfer, Gold und Silber auch noch andere werthaltige Metalle, Mineralien oder Edelsteine in Panguna zu finden und rentabel zu fördern sind?

Is the Board aware of any other minerals apart from copper, gold and silver that could be produced at Panguna? What is the company's evaluation of the value of these additional assets?

ANSWER of BCL:

There are small amounts of molybdenum and the economics of recovering it will be assessed.

18)

Is the company considering to convert the current open pit mine into an underground mining operation?

Gibt es Überlegungen bei BCL, die Pangunamine bei einer weiteren Erschließung vom Tagebau in einen Untertagebau zu überführen?

ANSWER of BCL:

No current indications are underground mining would not be economic.

19)

As of today, the law and order situation in the Panguna and Arawa area cannot be described as satisfying. If the overall safety situation cannot be significantly improved by the ABG, what could BCL do to secure the safety of its employees at the mine and hence secure the operationability of the mine?

Sollte es dem ABG in näherer Zukunft nicht gelingen, Recht und Ordnung im Panguna Gebiet und Arawa zu etablieren: Welche Möglichkeiten sieht BCL, um die Sicherheit der Mine und ihrer Angestellten zu garantieren?

ANSWER of BCL:

For the BCL Board safety of its staff is paramount so it will not be operating a mine unless it is safe to do so.

20)

In an internal projection the ESBC has calculated a fair value for the share of AUD 20 – 30 once the company has resumed mining at Panguna. Does the Board share the ESBC's projection or -if not- where do you see the share's fair value after the re-opening of the mine?

Die ESBC haben für den Fall der Wiederaufnahme der Förderung in Panguna einen Börsenwert von 20 bis 30 AUD je Aktie errechnet. Hält der Vorstand diese Bewertung für realistisch? Falls nein: Wie hoch bewertet der Vorstand den Fair Value der BCL Aktie nach der Wiederaufnahme der Förderung?

ANSWER of BCL:

The Board has not made any predictions on the share price.

21)

What are the Board's plans to make sure that in the future dividends and royalty payments will be paid out to the eligible persons. According to our information this had been a major problem back in the 1980s and was one of the issues that led to major frustrations amongst landowners and played a major role in the creating an environment which resulted in the closure of the mine.

Welche Möglichkeiten sieht der Vorstand vor, damit zukünftige Royalties auch tatsächlich ihre rechtmäßigen Empfänger erreichen?

ANSWER of BCL:

Dividends are paid to shareholders in accord with information on the company's share register. Royalties were paid to the National Government which redistributes them according to a formula it determined.

In addition to dividends and royalties the company paid compensation to landowners under an agreement between the landowners and the company.

22)

Did the 24th AUSTRALIA PAPUA NEW GUINEA BUSINESS FORUM AND AUSTRALIA PAPUA NEW GUINEA TRADE EXPO that took place from the 4 th to 6 th May cause any positive results for Bougainville Copper and the re-opening of the Panguna mine?

Hat das 24. Australisch-Papua-Neuguinea Business Forum und die damit verbundene Handelsmesse, die vom 4. bis 6. Mai in Cairns stattfanden, positive Ergebnisse für Bougainville Copper im Hinblick auf die Wiedereröffnung der Pangunamine gezeitigt?

ANSWER of BCL:

The Board is not aware of any discussion about the company at this Forum.

A quick & dirty discounted cashflow analysis of Bougainville Copper:

We are estimating that it will take 2 years to get the mine back into production. The model is based on mining being resumed in 2010. In other words, the decision to return to mining on Bougainville would have to be made in the first half of 2008. The entire model factors-in a 2-year run-up to mining; i.e. it will hold true even if the year of recommencement changes to something other than 2110. If a decision were made in 2009 and mining resumed in 2011, the model as such would be just as valid.

The key assumptions for the discounted cashflow model:

- 1) Remaining mine life: 15 years.
- 2) Revenue: Based on the average yearly production of copper and gold during the 1986-88 period.
- 3) Price for copper and gold: Current market prices extrapolated over the mine's remaining lifetime.
- 4) Operating expenses: 100% increase as compared to the last year of production. Yearly increase of 3% from reopening the mine.
- 5) Depreciation: The investments of US\$600m are written off over the remaining lifetime. These write-offs increase cashflow - though in our model this is not shown as it is based on distributable net earnings. However, investments will also be necessary during the lifetime of the mine (i.e. maintenance). We assume that free cashflow equals the investments in maintenance; an assumption that is probably too conservative.
- 6) Royalty to landowners: 3.5% of revenue (based on recent Landowners of Bougainville proposal; see appendix).
- 7) Interest: US\$600m loan at 10%; loan taken out in several stages during 2008 and 2009- to be paid back in six equal instalments starting in 2010.
- 7) Tax rate: 30%.
- 8) Foreign exchange rates: Assumed to remain constant.
- 9) Discount rate: 14%.
- 10) Financial cushion: As a further measure to ensure that we err on the side of caution, 5% of net earnings are placed into a separate reserve (e.g. to pay for a switch to underground mining at a later stage).

Valuation of Panguna mine (open-pit)															
(in million USD)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Revenue	\$1,556.0	\$1,556.0	\$1,556.0	\$1,556.0	\$1,556.0	\$1,556.0	\$1,556.0	\$1,556.0	\$1,556.0	\$1,556.0	\$1,556.0	\$1,556.0	\$1,556.0	\$1,556.0	\$1,556.0
Copper produced and shipped (million lbs)	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385
Price of copper (US\$/lb)	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01
Gold produced and shipped (million oz)	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495
Price of gold (US\$/oz)	802.4	802.4	802.4	802.4	802.4	802.4	802.4	802.4	802.4	802.4	802.4	802.4	802.4	802.4	802.4
Operating and other expenses	\$500.00	\$515.00	\$530.45	\$546.36	\$562.75	\$579.64	\$597.03	\$614.94	\$633.39	\$652.39	\$671.96	\$692.12	\$712.88	\$734.27	\$756.29
Operating expenses growth rate	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Depreciation	\$40.0	\$40.0	\$40.0	\$40.0	\$40.0	\$40.0	\$40.0	\$40.0	\$40.0	\$40.0	\$40.0	\$40.0	\$40.0	\$40.0	\$40.0
Royalty (landowners) - 3.5% of sales	\$54.5	\$54.5	\$54.5	\$54.5	\$54.5	\$54.5	\$54.5	\$54.5	\$54.5	\$54.5	\$54.5	\$54.5	\$54.5	\$54.5	\$54.5
Interest expense	\$60.0	\$50.00	\$40.00	\$30.00	\$20.00	\$10.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
EBT	\$901.6	\$896.6	\$891.1	\$885.2	\$878.8	\$871.9	\$864.6	\$846.6	\$828.2	\$809.2	\$789.6	\$769.5	\$748.7	\$727.3	\$705.3
Tax-rate	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Income tax	\$270.5	\$269.0	\$267.3	\$265.6	\$263.6	\$261.6	\$259.4	\$254.0	\$248.5	\$242.8	\$236.9	\$230.8	\$224.6	\$218.2	\$211.6
Net earnings	\$631.1	\$627.6	\$623.8	\$619.6	\$615.2	\$610.4	\$605.2	\$592.6	\$579.7	\$566.4	\$552.7	\$538.6	\$524.1	\$509.1	\$493.7
Debt repayment	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0									
Debt outstanding	\$500.0	\$400.0	\$300.0	\$200.0	\$100.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
"financial cushion" in % of net earnings	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Net earnings distributable to shareholders	\$499.5	\$496.2	\$492.6	\$488.7	\$484.4	\$479.8	\$474.9	\$463.0	\$455.7	\$448.1	\$442.5	\$436.7	\$430.9	\$425.1	\$419.3
Present value of net earnings distr. to shareholders	\$384.4	\$334.9	\$291.7	\$253.8	\$220.7	\$191.8	\$201.5	\$173.1	\$148.6	\$127.3	\$109.0	\$93.2	\$79.5	\$67.8	\$57.6

Present Value of Panguna mine (open-pit)	\$2,734.87	AUD	EUR
Present Value per BOC share	\$6.82	\$7.84	4.63 €
Discount rate	14.00%		
Shares outstanding (million)	401		
Capital investment in 08/09 = loan (in mln US\$)	600		
Interest rate on debt outstanding	10.00%		
USD/AUD exchange rate	1.149		
USD/EUR exchange rate	0.679		

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