

# **The Challenges of Success**

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## **Abstract**

Mining in the twenty-first century brings with it a new range of challenges, some unfamiliar to our industry. Skilled staff recruitment and retention is a significant issue. Equipment supply lead times are changing the risk profile under which we operate. And the new landscape of this century demands accountability at all levels while also requiring that we deliver more to our shareholders and our host communities. This paper draws on experiences in Waihi, addresses some of the challenges facing the modern mining industry and suggests some modest mitigation strategies.

## **Introduction**

Newmont Waihi Gold (NWG) operates the open pit Martha Mine in Waihi and the Favona underground mine on the outskirts of the town. At the present time Martha has three years of operational life remaining. The Southern Stability Cutback to reduce the slope of the pit wall is well underway. At Favona production stoping has commenced. As at mid July the decline was over 1900m in length and 270m below the surface. The southern decline branching off at 875 RL was 120m long. Our extensive exploration programme continues. Near mine exploration is currently underway on the eastern and western perimeters of the Martha pit, and beneath the pit floor. The Cornish Pumphouse that was being moved during last year's conference reached its new home in November and was officially opened by the Prime Minister in February this year, With landscaping, lighting and fencing completed it is now open to the public. We continue to work closely with a wide range of community groups; in particular the Waihi Community Vision group (WCV) and the community trust it formed last year, the Vision Waihi Trust (VWT).

All of this sounds good – and it is. It is a real success story. But with every success story comes another story, one that I have chosen to call 'The Challenges of Success'.

## **The Challenge**

Our first challenge is to show by example that it is possible to have a sustainable environment and a self reliant community even after mining. We need to dispel the legacies of the past, of boom and bust towns like Ohai where I grew up. That means being environmentally and socially responsible, and not just talking about it.

Next, Newmont would like remain in New Zealand and to be milling in the Waihi region in the future. That means finding new projects to keep our mill running at capacity, and it means doing so in a timely manner before our current skill set is lost to the region. This is becoming increasingly difficult as mining worldwide continues to expand, as personnel and equipment shortages make themselves felt, and as we compete against our communities for power, water and labour.

You could be forgiven for assuming that supply chain logistics would take care of much of this, and that none of these matters would be a challenge for a forward-looking operation that is part of a global organization.

Let's investigate some of those issues.

### *Challenge: Ore Supply*

The Martha pit was scheduled to close in June 2006. Additional ore recovered as part of the Southern Stability Cutback will extend that date to early 2010. Reserves at Favona will last until 2011. We need to feed the mill quality ore, and right now we have a hungry mill with a lean pipeline.

The challenge surrounding exploration is to provide a Martha-size resource or a high quality ore deposit capable of being mined by underground methods. That requirement has a critical deadline given the lead time for projects of this size and their complexity. We know the Hauraki goldfield contains over 50 epithermal deposits. We know the district is comparatively under explored. We are also very much aware of the issues surrounding land access. We are still looking.

### *Challenge: Staffing*

The issues surrounding the recruitment and retention of skilled staff will be covered in depth by other papers at this conference. All mining operations face the same problems. We operate in a comparatively volatile industry with specific demands for specialist staff. Those same staff are in demand in all sectors of the extractive industry in New Zealand. They also equally in global demand, where the remuneration far exceeds that which we can offer in this country.

We need to retain our technical staff and use home grown talent where possible. One way of doing this is to move people with expertise into a reviewing role rather than hands on. We need to spread that expertise more widely without making it thinner. That means providing support staff at appropriate levels and modifying reporting structures to ensure expertise is available where and when it is needed, rather than being used in lower ranking tasks. We need to standardise software packages in and across industries, and underpin staff with good systems that work for them. In a time of skill shortage we need to use collective expertise to bridge any gaps at each site and across sites.

So, we compete with each other for a scarce resource that is in international demand. Underground staff, electricians, machinery operators, metallurgists, and more can choose where to work from a wide range of job opportunities across the globe

To add to this, we cannot assume that the skilled staff we have will remain with us. They too have the option to choose from a range of global job opportunities.

If we can't compete on pay levels, then the challenge is to compete on lifestyle. This is not a new approach. Several operations already promote New Zealand's attractions, the recreational opportunities and the relative proximity of most sites to towns, cities, beaches or ski fields. We promote 'work-life balance' when compared with fly in – fly out sites.

Can we do more?

We can. We need to go beyond 'work-life balance' to a 'whole family' approach. We need to make sure that we are attracting partners of potential staff and retaining those we have. That means we need to take an interest in how a family is settling in, how they are finding schools and sports clubs and social activities. It means getting proactively involved at the start rather than reacting to a problem after the event, by which time it is most likely too late. It means providing opportunities and fostering positive attitudes on a regular basis

We can do better with careers initiatives in secondary schools, and we can do better with tertiary student vacation programmes. We need to encourage graduates in relevant disciplines. We need to work more closely with universities and training providers. We need to attract more women into the industry.

And we need to do all of this now. The mining workforce is aging. Current staff have a wealth of practical experience to impart. It is up to us as an industry to do something about this issue, and not simply complain about its existence.

The Minerals Council of Australia estimates that 70,000 new employees will be required in our industry alone over the next decade. That's one out of three entrants into the workforce. Faced with these figures, complacency on our part is not an option.

### *Challenge: The supply chain*

Shortage of gear and longer lead times for supply has changed the risk profile under which we operate. The increase in mine production worldwide has placed pressure on the supply of all service related commodities. Add to this China's insatiable demand for raw materials, which is reshaping the commodities market. Critical spares must now be held for many more items. We cannot use the previous history of plant availability or productivity data to schedule in this changing climate.

Some examples provided by our United States-based head office illustrate the issues.

A Caterpillar 777 haul truck typically used in many New Zealand operations currently has a supply time of 60 weeks. Order the 380 tonne 797 and you will be waiting until first quarter 2010.

Mill equipment has similar delivery times. You will wait 90 weeks for ball mill heads, 110 weeks for gear sets and 70 weeks for large motors.

The Big Three tyre suppliers (Michelin, Bridgestone, Goodyear) make up 95% of giant tyre market and have only five plants worldwide. Global demand for tyres has increased 80% since 2004. Most manufacturers hold zero inventory. Michelin and Bridgestone are investing in increased capacity to boost capacity by 50%, but this will take some time to come on stream.

Freight charges continue to escalate, surcharges have been implemented by some suppliers. Shipping companies are not allocating space for flat racks. When they do allow space the flat rack rate has in some cases tripled since 2005. A strengthening global economy will mean this situation is likely to continue.

Petroleum & energy costs continue to rise. In Newmont's case at Waihi, just getting enough power to Favona continues to be a significant issue. Another year has passed and we are still not connected to the grid. At the present time it is not possible to power Martha and Favona using existing infrastructure. We continue to run Favona using diesel generators. This is expensive, inconvenient, and obviously has an effect on our carbon emissions. It also highlights an issue to which I will return later.

How do we deal with this? Part of the answer is that we need to diversify outputs. We need to mix open pit with underground, epithermal with low grade disseminated deposits, each with different sensitivities. In other words we need to spread our risk. At the same time we need to be aware of criticism from the marketplace that mining companies are not performing. It is

more and more important that we are able to deliver to shareholders.

*Challenge: The regulatory framework*

We have been working for a number of years under the RMA and we should all be well used to it by now. I will make only one observation; the complexity of any large application under the Act. Consider this. In our local areas of interest we must work with two Regional Councils, four District Councils (each with a different District Plan) and two different Department of Conservation offices. The boundaries of each of these bodies are not the same, so in one area we might be working with Hauraki District Council, Environment Waikato and the Coromandel DoC office, while just a few kilometres away it would be Environment Waikato, Matamata-Piako District Council and the Coromandel DoC office, which would become the Bay of Plenty DoC office if we moved slightly south, or Western Bay of Plenty District Council and Environment BOP if we move slightly east. This can be ungainly, inconvenient, and counterproductive.

*Challenge: The community*

In Waihi we operate in the middle of a community and have done for the last 20 years. The southern wall of the Martha open pit is less than 100 metres from the main street. Members of the public can watch us drilling, excavating and hauling from several especially constructed vantage points. We have drill rigs operating at several locations around town at any given time. There's a popular walkway along the top of the north wall. The town's roundabouts feature balls from the mill and there's a mill girth gear on one of the walking tracks next to the 777 truck. The town has branded itself as 'New Zealand's Heart of Gold'.

Our staff are members of local sports clubs and on school Boards of Trustees. Their partners work in town or volunteer to help at the Toy Library. On a cold night after work it's not unusual to see ten or more high viz jackets in the supermarket aisles. We know that we are responsible for somewhere around 25% of the town's economy. Compare that with the 6% contributed by all local government to New Zealand's GDP and you can get a feel for how important that is. We take our position seriously.

Over the last ten years we have contributed significantly to local schools. We actively support a wide range of sporting, cultural and social groups, events and activities. We are pleased to be active partners in our host community.

Over the last four years we have participated in a range of community forums and discussion groups. Along with Hauraki District Council we initiated the Waihi Community Consultative Committee (WCCC). This has developed into Waihi Community Vision and the Vision Waihi Trust. Subgroups have developed. We now have a Social Development Group, a Social Impact Group, Waihi Heritage Vision (WHV), Creative Waihi and Sport'n'Action.

The community energy, enthusiasm and commitment are tremendous. These groups are contributing significantly to the physical, social, cultural and economic infrastructure. The question needs to be asked, however, are all of these issues the legitimate business of a mining company? – albeit the largest employer in the town. Are dairy companies, kiwifruit packhouses or forestry companies contributing as much? Are we fulfilling some of the legitimate and primary roles of government departments and social agencies? As was suggested by Mitch Hook at a conference about two years ago, is our 'Social Licence' now so big that it won't fit in our company wallet?

I believe the 'licence' can become so big that there's no room for any money in there. But I

also believe that would be due to mismanagement rather than any original misguided commitment. The key is to provide a 'hand up' not a 'hand out', to work alongside existing agencies and within existing structures, and not to attempt to be all things to all people. This means using industry skill sets and knowledge to increase community self-reliance post closure; to enable the community to move to a sustainable future. That seems a fair thing to do after being the dominant economic force in a community for two decades. At the same time it is vital to manage community expectations at a time of potential economic and social uncertainty.

### *Challenge: The new landscape*

We all acknowledge that the 'boom and bust' behaviour of the nineteenth century and the first half of last century is no longer valid in our industry. We have begun to replace this with 'sustainability', and several operations in New Zealand, including Newmont Waihi Gold, have put considerable resources into furthering this concept as a viable alternative model. At Waihi we have a Sustainability Manager who works with all stakeholders to develop and implement effective strategies to not only mitigate the economic and social effects of mine closure, but to actively build on closure concepts and use them to leverage new opportunities.

This is working well for us at Waihi, but how far can we go? What can our industry as a whole realistically be expected to do? Are all extractive industry operations a 'temporary land use' that will provide significant benefits to a community after closure? Can smaller operations, or different operations such as quarries, meet the same community expectations? Have we perhaps created an expectation that we are not able to fulfil on an industry-wide basis? If so, how do we address this issue?

There is also an additional concern. As an industry we must be careful that we do not overcompensate in an attempt to atone for what some sectors of our communities perceive to be the sins of our past. Any broken social promises today will be viewed in the same way as were the environmental effects of the industry of yesteryear. Buying acceptance may at times be an attractive option, but it is vital that we take a long term view.

There is a flip side to this too. When large mines operate in a community they compete with their host community for power, water, labour, transport and all infrastructure. What's good for us may not always be good for the whole community. We need to be alert to the physical, environmental, social and political effects of our operation on our communities. We need to be good neighbours. We need to ensure that we do not inadvertently contribute to a decrease in our community's long term capacity to meet its needs at the expense of meeting our shorter term requirements.

### *Challenge: the media and popular perception*

Misconceptions and half-truths abound in much of the media, and in popular understanding. We all know people who will drive down the motorway in an SUV en route to the ski fields – and decry the quarry or mine or plant they travel past as an environmental travesty. Everybody wants the benefits. Nobody wants to think about where those benefits come from. Worse, much of the supposed 'information' the public has is a mishmash of half-truths, distorted facts and misunderstanding. Tailings dams automatically adopt a one-word neologism and become 'toxicwastedumps' and all site discharges must be 'pollution'. All gold mining is bad, all coal is dirty. This somehow self evident 'fact', to the extent that the most environmentally destructive activity in the history of the planet is obviously flying to China or India in a gold-plated 747 with a load of South Island coal in the hold and serving

snails as an entrée.

The mistakes our industry makes are news, while publication of the successes is seen as self-serving industry flag waving. In many cases we are our own worst enemy. Media-averse and keen to work out of the public eye, our industry instinctively shies away from the spotlight. We can do better, and we will need to in the future.

*Challenge: the future*

I know that the challenges we face at Waihi are not ours alone. I am sure there are others here today who represent operations throughout the country with similar issues; continuity of raw material supply, recruitment and retention of quality staff, guaranteed supply chains, working effectively with host communities.

These are not new issues. The few possible solutions I have suggested may not be new either. What is perhaps new is the way we are learning to deal with those issues, finding new ways of working through industry concerns, finding more productive ways to work with the Crown, regulators and communities, negotiating the best outcome for all concerned so as to deliver value to our shareholders. That is what mining in the twenty-first century must be about.