



Costs and mine planning 2
18 December 2009

We work in an industry which has a seemingly unique ability to survive and prosper despite itself. We can track the Australian mining industry back to 1846 when copper was discovered in South Australia and we see that the vast majority of people and companies involved in mining do not succeed. Obviously there are some notable exceptions. How many companies listed in the mining section of the stock exchange 20 years ago are still trading now? Very, very few.

Last week the editor of Highgrade described me as an outspoken critic of industry operating performance. I don't deny that I find fault and criticise a range of attitudes and performance results. Unlike many commentators I always relate what I say to facts. You see 20 years ago nobody knew how inefficient most of the mining equipment was because there were no monitors and most people kept only rudimentary records. The industry knew how inefficient the use of labour was because that was recorded. From the mid 1980's companies started dealing with labour inefficiencies. Those changes took about 15 years to work their way through the industry (and some companies still accept outdated work practices). Now we have records from monitors which demonstrate how inefficient as an industry we are. We have facts. The smart few have started to move and change: the majority are finding reasons why they shouldn't. How long can a mine justify having equipment output 25% or even 50% below what others are achieving? It will work its way through the system. The data is available; surely you should at least try to replicate what best practice mines are doing? You don't have to exceed them - just start by trying to replicate them.

Now on to what I really wanted to say. There are a few who have made money from mining and never actually mined anything. There are the companies which search for the next great discovery so they can flog the discovery to the big miners. Then there is the plethora of mining equipment suppliers and service companies. For the rest of the industry you have to survive based on what you dig out of the ground. If you don't have anything to dig which costs less than you can get for it, you don't

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have a job and shareholders lose their money. The dilemma is obvious. The reasons for using fictitious costs and income levels are simply to keep the “hope” of the future intact.

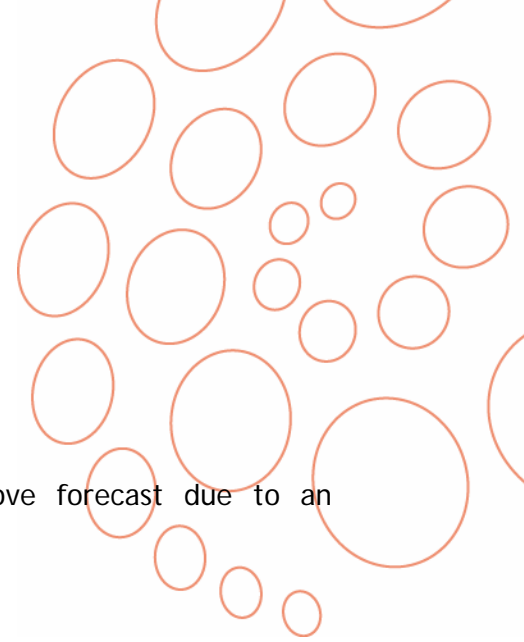
But is this fair on shareholders? Should the stock exchanges be allowing this? If a company claims **economic** reserves of say 1,000,000 ounces of gold when the real number is closer to say 800,000 (when correct financial inputs are used), the impact on the value of the company is substantial and the likely return to shareholders severely diminished. Mine plans can get away with fictitious costs and income levels because commodity prices change and exchange rates fluctuate greatly. When returns change it is easy to blame it on commodity prices or exchange rates. Shareholders deserve better but stock exchanges and shareholders have not held Boards of Directors nor Executive Management accountable for their actual results vs their mining plans. Add to this the practice of issuing options to Executive Management which rewards increases in share price and you surely see the problem. I am struggling to find a description for what many mining companies do except dishonest. The disturbing thing is that the dishonesty is being supported by a range of other players who also need economic mines or prospects to support and help their businesses grow. For some of these other players it is a sin of commission (eg. mine planning consultants who claim to know but continually get it wrong) and for some it is a sin of omission (eg. stock exchanges who don't adequately reconcile mining company performance). They deserve the same contempt.

I promised a few weeks ago that I would include some actual examples of cost inaccuracies. In these examples, every instance of OEM or third party input the life of mine cost estimates have been an underestimate.

- Haul Truck actual cost (based on a contract rate), was 108% above the forecast
- Actual maintenance Dozer cost was \$26/hr above forecast,
- Actual maintenance Haul Truck cost was \$22/hr above forecast,
- Actual maintenance Excavator cost was \$75/hr above forecast,
- Actual maintenance Grader cost was \$13/hr above forecast,
- Actual fuel burn on trucks was 37 l/hr above forecast,

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- Actual tyre life was 2500 hrs below forecast,
- Actual labour cost was \$55/hr above forecast,
- Actual labour rates were 0.12 man hours / SMU above forecast due to an underestimation of manning requirement,
- Actual 'tooltime' for labour half forecast.

The end result in these cases was very poor mine plans from production, scheduling and cost perspectives.

I assume my frustration is obvious. This industry has quality cost data available and most mines simply won't use it. I hope that by highlighting this issue that the industry will start giving it the attention it deserves.

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