

MININGINSIGHTS

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JUNE 2003 – MII GLOBAL VALUE ANALYSIS

MII RESEARCH SUMMARY

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> THE MINING INSIGHTS GLOBAL MINING INDEX

Sector performance continues in a general uptrend although month-on-month performance numbers show Platinum & Palladium stocks to be 'the only game in town'. MIM Holdings disappears, replaced by Penoles (Mexico) and Xstrata (Europe). Analysis of exchange rate fluctuations on global capital flows suggest Canadian, then European, stocks ideal for defensive holdings; South African stocks for highly volatile but tradeable performance, and that Australian resource investment is quick to collapse and slow to recover.

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> MINING INSIGHTS VALUE VS PROMOTION ANALYSIS

[Gammon Lake Resources'](#) reported 247% internal rate of return at the Ocampo project suggests much higher investment risk than originally appears; [Cumberland Resources'](#) 33% IRR (MII estimate) on the Meadowbank project suggests exactly the opposite – things to consider if framing an investment in either company.

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> MINING INSIGHTS GLOBAL MINING PORTFOLIO

Investment risk analysis shows slight gains in Producer and Feasibility sectors and strong gains in Advanced Exploration. Momentum stocks (financially levered) led the charge over Value stocks. An 8c jump in unit value recaptures a four-month high and suggests investor interest 'further down the food chain' is alive and well.

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> MINING INSIGHTS GLOBAL GOLD COMPARATIVE TABLES

The MII Global Gold stock universe is evaluated how the value gold you would earn by buying 1,000 shares of stock relates to the value of the shares. On production terms, only [Queenstake Resources](#), [Northgate Minerals](#) and [Canyon Resources](#) give you a premium; integration with Mining Insights leverage analysis suggests Queenstake as a core holding.

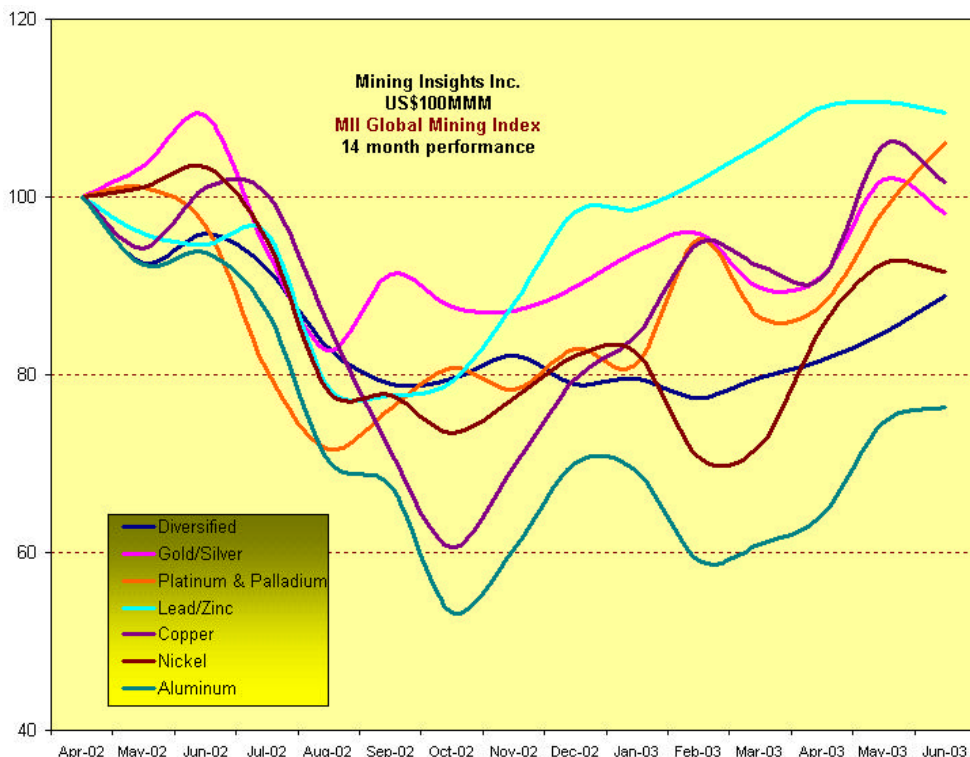
On reserves, only [Meridian Gold](#), [Randgold Resources](#) and Goldcorp suggest overvaluation on this rather restricted basis; [Durban Deeps](#), [Ashanti](#) and [Sons of Gwalia](#) present the best value at current prices.

With the death knell of the global financial system being passed via email to MII on a more regular basis, it seemed instructive to look at how the MII Global Mining Index was performing. After all, if the Dow and the gold price were to meet halfway as a few pundits are now suggesting, at say, $4054.70 - ((4054.70 - 344.20)/2) = 2199.35$, then trend analysis should show indications of a vast withdrawals of money from every sector but gold/silver. The performance lines would turn down, and as you can see from the chart, only the

Gold/Silver sector and the Copper sector are losing investor interest.

Sector Performance:

Diversified Producers – the sector market cap was down 4.5% to US\$18.547MMM. All companies – Western Mining, Rio Tinto, Anglo American – were down slightly. The next valuation period includes Xstrata plc, the London/Zurich based holding company that swallowed Australian zinc producer MIM Holdings as



of June 30th, 2003.

The gold/silver sector was down 3.9% to US\$31.215MMM. Not a convincing performance either way, but an interesting feature is the rise in Johnson Matthey share price (JMAT-LN GBP 8.91). While a one period gain does not a trend make, watch the JMAT stock price as a proxy for a silver price rise, and more importantly, when a run in the silver price may be nearing a close. When JMAT goes to 3 shifts at the Hong Kong refining plant, flip your long for a short position in silver. It worked the last time! [Newmont Mining](#) was the best performing equity in the otherwise lackluster gold/silver sector.

The platinum/palladium sector was down 7% to US\$10.937MMM as a US\$933MM drop in Amplats value more than offsets the "Still water" (post Norilsk acquisition) gain of

US\$43MM. A new addition to the platinum palladium sector is new MII Partner Company [Platinum Group Metals Ltd \(PTM-V C\\$0.38\)](#) adding US\$7.7MM market cap to the sector. As you will remember from Mining Insights February 2003, PTM's primary value driver is having a developing orebody in a land package arguably too small for a stand alone operation but with a producing mine next door. "Buy the orebody or buy the company" is always a tantalizing question as the mine plan exhausts the available reserve...

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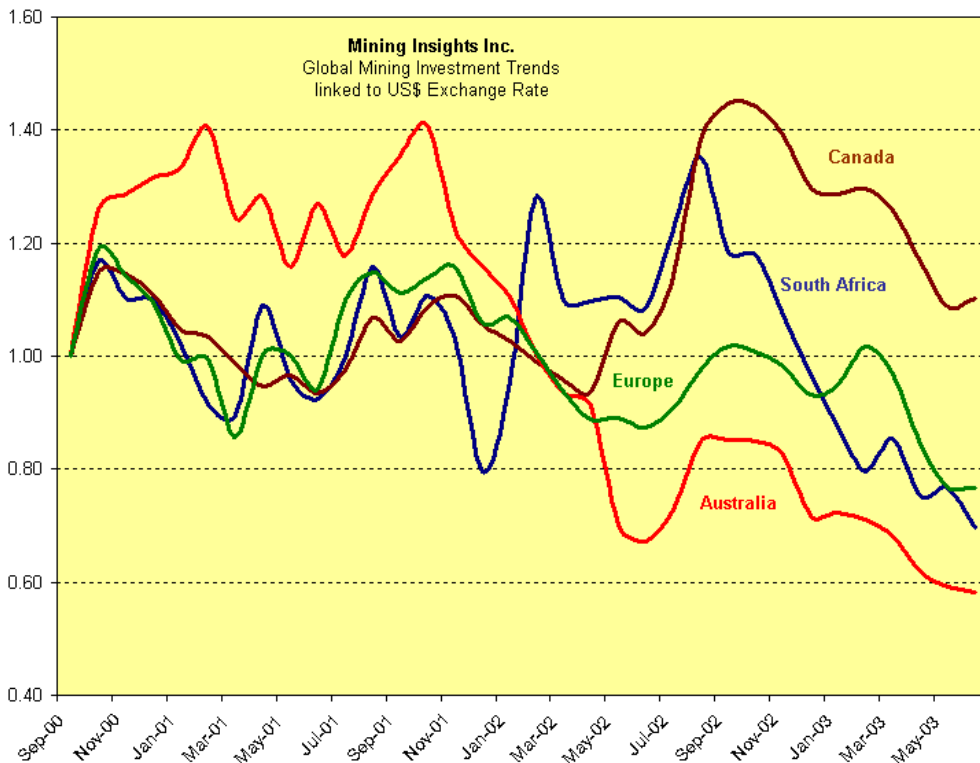
The lead/zinc sector was 'dull and gray'. With the removal of MIM Holdings comes an opening to be filled with [Penoles](#) ((Ps18 on BMV Mexico). Yearly average production at Penoles is 366,000 oz gold, 52.6MM oz silver, 86,800 tonnes lead, 265,900 tonnes zinc, and 11,800 tonnes copper. Penoles contributes US\$689MM and with [Xstrata plc](#) in the Diversified section, matches MIM market cap to within US\$85MM.

The copper sector ([Phelps-Dodge](#), [Freeport](#), and [Antofagasta plc](#)) fell 4.1% on profit taking after a three period run in value. A 1% loss in the nickel sector doesn't undermine the strengthening trend of the past few valuation periods due largely to [Inco](#) (N-T \$29.40) and [Eramet](#) (ERA on the Paris bourse; 24.00 euros). Finally, the aluminum sector was off 2%, essentially oscillating back and forth without a firm sense of investor interest or disinterest.

What to do?

Making the news this week was the Bank of Canada's 25 basis point rate cut. This vicious attack on inflation is designed to pull the cash from investor's pockets such that purchases of white goods increase (and the nickel sector outperforms itself as a result). And, to send the Canadian dollar back to \$0.60/US\$ where recent history would have it belong such that exporters may continue to export and so survive Canadian fiscal policy.

In response to a Member question, this analysis looks at how mining investment regions stack up against each other as a function of the relevant currency moves against the US\$. Given that everything else remains equal (the limiting factor is the underlying commodity risk is assumed equal), the global big-cap investment world shows some definite underlying value trends:



trends:

If the local currency increases in value against the US\$, costs grow and margins lessen. Profitability drops; investment leaves. If currency appreciation was met with an offsetting disinvestments, the line would fluctuate around

1.0 right the way across the chart. It clearly doesn't.

Investors enjoying investing in Australia when the currency is depreciating (line rises

above 1.0) but are not shy about unloading equity investment when the currency appreciates – this is the global trend. The South African volatility

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suggests a trading call on equities if the Rand starts to depreciate again; the chart suggests the gain could be quick and tasty. Pick the top because you can see how the reverse works!

Is Canada the safe haven the chart suggests it is? Certainly when the 'loonie' goes south investors pile in to Canadian equities and appear slow to leave when the 'loonie' flies north (until shot down by the Bank of Canada).

Here is the MII Global Investment Flow summary for this valuation period:

Capital Flows	Mar-03	Apr-03	May-03	Jun-03	Jul-03
Canada +/-	0%	-1%	3%	4%	2%
USA +/-	-2%	2%	7%	12%	1%
RSA +/-	-7%	-13%	2%	10%	-4%
Europe +/-	3%	3%	9%	5%	-4%
Australia +/-	1%	2%	4%	1%	-2%
FLOW TYPE	OUT	OUT	IN	IN	OUT

Commodity Flows	Mar-03	Apr-03	May-03	Jun-03	Jul-03
Diversified	3%	2%	2%	4%	-5%
Gold/Silver	-6%	-6%	6%	7%	4%
Plat./Pall.	-9%	-18%	2%	12%	-7%
Lead/Zinc	4%	4%	4%	1%	1%
Copper	-3%	-2%	-1%	16%	4%
Nickel	2%	-3%	18%	8%	1%
Aluminium	3%	7%	6%	8%	-2%
FLOW TYPE	OUT	OUT	IN	IN	OUT

> **MINING INSIGHTS VALUE VS PROMOTION ANALYSIS**

Gammon Lake Resources and Cumberland Resources both released information bearing on the pro-forma potential of two advanced development gold deposits – perfect to contrast the difference between promotion >> value on one hand and value >> promotion on the other!

Gammon Lake Resources (GAM-T \$2.75) – Promotion Alert!

As I finish the spreadsheet model on Gammon Lake's Northeast Ocampo project, an unsolicited fax alert from 'Gold Stock Investor' rolls off the fax extolling the 247% IRR I'll mention in a little bit. Checking the disclaimer and finding \$150,000 paid for the fax alert by the company and written by folks unknown with whacking great share positions just begs an objective analysis. So here goes...

Gammon Lake Resources reported the results of an independent scoping study on the Northeast Ocampo project that suggested an internal rate of return of 247%. 247%?

[Note to self: 247% IRR in business school finance class means an input error probably at the front end!]

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Back checking the results in a spreadsheet did return a 253% IRR although you are required to believe that a US\$15MM investment in year 0 returns US\$37MM in gross profit in years 1 through 8. Nice work if you can get it.

To illustrate the inherently flawed rationale in any IRR, consider this. Buy 1000 shares of GAM-T at \$2.75. If the price goes to \$6 and stays there for eight years, you've made your 247%. If the price drops to \$1 in year 8, you've made a 245% IRR. If the price drops to a buck in year 7, 245%. Year 6, 244%. Year 5, 243%. Year 4, 240%. Year 3, 226%. Year 2, 169%. Year 1, 38%. With so much of the presented value falling in year 1 and half of year 2, there are a lot of questions behind the value calculation. If you increase the projected US\$15MM cost in year 0 by 10% (not much), your IRR drops 15%. On a one year IRR basis, a slight cost overrun kills the project. Is that what a 245% IRR is intended to represent?

[Note to self: try defending IRR over DCF and/or APT for an object lesson in graduate finance class humiliation]

The news release also suggests this underground deposit will be mined by 'narrow-vein block caving'. Right. Block caving is used in large tonnage low grade environments because you have to allow the top surface to subside over a large areal extent. Narrow vein mining is exactly that, and you can see an example in the photo on the website home page. In sensu stricto without a necessary clarification, 'narrow-vein block caving' is meaningless. Narrow vein open stoping? Sure. Narrow vein long hole caving? Sure. The point here is that the combination of a 1.5-year 245% IRR using a the juxtaposition of 2 mining methods diametrically opposed to each other stretches the boundaries of investment imagination just a little too far.

To get the same 247% on your Gammon Lake stock, the price needs to go to \$6/share and stay there for the next six years. To capture the essence of RR valuation, the price needs to skyrocket upward rather quickly.

So if you are going to follow this classic momentum play, make sure a stop loss is in place for when the momentum stops. And for more IRR insights, follow along as we visit Cumberland's recent announcement as well.

Cumberland Resources (CBD-T \$2.89) – Value Alert!

Members hold 97,000 shares with a capital gain of 135%

Cumberland Resources reported that continuing open pit studies on the Meadowbank deposit have expanded the open pit potential. The company gave an updated resource of 1.536MM oz in the measured and indicated categories.

Using this information, that in the 2002 Annual Information Form, and a conversation with the eminently qualified Cumberland CEO P.Geo., I've run an IRR on the same format as the Gammon Lake analysis, above. At 167,000 oz per year with operating costs of US\$187/oz and US\$93MM to build the mine, an eight year mine life (same as Gammon Lake) gives an IRR of 29%.

[Note to self: good work. Proceed to financing.]

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This is a completely realistic number that suggests production-based value creation. The implied economics will almost certainly improve with work to move the current 1.46MM oz of inferred resource into a higher definition category. At 250,000 oz per year (for example), the IRR moves to 38% with the same inputs. Cost sensitivity shows a 4% IRR drop for every 10% of year 0 cost escalation.

Think of Cumberland as the value play for which you don't need a stop loss in place. Offset the high-risk Gammon Lake in your portfolio with low-risk CBD so you can sleep at night.

Here are more things to consider:

The dikes - while some of the deposits are under a shallow lake, the lucky presence of resistant rock units means the one to two metre dikes needed to mine the Portage pit should be easy to install and not sport too much of a hydraulic gradient across them. Geotechnical drilling has been completed and issues have been resolved.

The gold is contained in 'iron formation', a rock type you'll recognize from MII Accrex Ventures coverage. The key difference to this Fe formation against others in Nunavut is that there is no arsenopyrite, and therefore no source of arsenic to mitigate in tailings. There is little quartz either, which should make it quite easy (and cost effective) to crush. Metallurgical testing this past year suggests that a pre concentration step by gravity separation followed by a 'whole ore leach' (covered tanks) is the way to go that balances process costs with required power inputs.

Your investment in Cumberland should get a boost later this summer when assay results are released. There are 99 holes from the Vault deposit, and near surface 'shear zone' hosted open pit target with 830,000 oz split between measured/indicated and inferred. There are 41 holes from infill drilling in the Portage pit and North Portage.

Play Cumberland for approaching-production value creation. If you don't have a stop loss in place, don't worry about it.

> BACK TO THE MII GLOBAL MINING PORTFOLIO

We've had a good month, with slight gains in all investment risk sector – Producers rose 3%, Feasibility stocks (like Cumberland) rose 4%, Early Exploration stocks rose 12% and stocks-without-a-convincing-value-oriented-exploration-strategy rose 3%.

Top C\$ producers were Bema Gold (assuredly on the back of Monument Bay results); Miramar Mining, Royal Gold, and Ghana favourite Golden Star. The Top US\$ producer was Newmont Mining. Feasibility stocks running ahead included Great Basin Gold, Gammon Lake, and Southwestern Gold, and if this isn't a Momentum portfolio, then what is? Value plays making investors happy taking strong capital gains were Minefinders and Nevsun.

Advanced exploration stories making the rounds were cash-flush Chesapeake Gold, MII Partner Minera Andes, and Red Lake favourite Rubicon Minerals. Outperforming early exploration stocks were Aquiline Resources and Golden Phoenix.

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Check the following statement for all the pertinent data, and then visit the MII Global Gold Comparative Table for what may be a harsh reality check!

Fund Sponsor Mining Insights Inc. Portfolio Manager Members, ie, YOU.	Asset Class Metals Equities Valuation Date 2-Jun-2003
Start Date 30-Nov-2001	Total Assets \$ 23,134,074.50
Equity Value Added: \$ 1,131,672.00	New Equities Added \$ -
Statistics	Top 10 Holdings Sorted by Overall Performance
Cash 6%	1 Golden Star \$ 1,146,693.00
Bullion & Derivatives 1%	2 Minefinders \$ 746,644.45
Equities 96%	3 Western Silver \$ 399,769.30
of which...	4 Durban Deepes \$ 290,868.00
Producers 71%	5 Newmont \$ 280,773.88
Feasibility 23%	6 NovaGold \$ 277,420.00
Advanced Expl'n 36%	7 Cumberland \$ 199,050.00
Early Expl'n 4%	8 Harmony \$ 149,887.20
No Expl'n 2%	9 Royal Gold \$ 147,080.00
Traded Funds 1%	10 Eldorado Gold \$ 122,739.50
Positive Growth	Negative Growth
Capital gains (Sum) \$1,400,135.00	Equity Sales (period) \$ -
As % of total value 6.1%	Units Redeemed -
Price Performance (since last valuation)	Risk Level Performance (since last valuation)
Current Price \$ 2.80	Producers 3%
Last Issue \$ 2.71	Feasibility 5%
Change \$ 0.08	Advanced Expl'n 12%
2 months ago \$ 2.09	Early Expl'n 4%
4 months ago \$ 2.83	No Expl'n 0%
Index Performance	Indexed by Risk Level (100 at 30 Nov 2001)
Members Fund Ix 359	Producers 783.7
Last Month 329	Feasibility 226.8
2 Months Ago 254	Advanced Expl'n 515.5
6 Months Ago 339	Early Expl'n 575.9
12 Months Ago 544	No Expl'n 0.0

Thanks to Members participating in the Global Mining Portfolio and if you have any trades to update, please send them in!

> MINING INSIGHTS GLOBAL GOLD COMPARATIVE ANALYSIS

Welcome New Member 'Bill' from Quebec, a fan of global diversified big-cap gold companies and an investor with a great knowledge of other investment sectors. And, a new favourite of Bill's is Queenstake.

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In fact, Queenstake Resources Ltd has been a favourite point of Member discussion with frequent questions on value sustainability post-Jerritt Canyon. Now that the purchase financing has been resolved, let's look to the future – it is the MII view that likely two

quarters will be needed with all production to the Queenstake account before the market notices that Jerritt Canyon ownership has changed. Then a re-rating is expected as the company starts fielding analyst calls...“What do you get with Queenstake” is a favoured refrain, so here is a methodology that highlights impending value:

Adding Jerritt Canyon to Magistral will give Queenstake annual production of about 270,000 oz gold, or 1.2 oz per thousand shares. If you buy 1,000 Queenstake shares, you'll pay US\$224.00 at current share prices and exchange rates. The gold that you have through your 1,000 shares is worth US\$422 at current prices.

Purists might say that the difference in cost to value of US\$198 may stretch the operating margin – BUT, on this basis, Queenstake is one of only THREE companies that give you the chance to buy gold oz through the shares and pay less than what the gold represented by those shares are worth.

Company MI GLOBAL GOLD COMPARATIVES	Local Price	MM Shares	US\$MM Mkt Cap	MM oz Au Prod'n	MM oz Au Resv	Oz Prod per 1K shares	Your 1K shares are worth US\$...	Your gold is worth US\$...
Queenstake (Jerritt)	0.32	225	50	0.271	0.8	1.2	\$ 224	\$ 422
Richmont (C\$)	4.23	15	44	0.102	0.3	6.8	\$ 2,961	\$ 2,380
Northgate (C\$)	1.48	33	34	0.282	3.0	8.5	\$ 1,036	\$ 2,991
Canyon (US\$)	1.29	20	26	0.086	7.8	4.3	\$ 1,290	\$ 1,505
Rio Narcea (C\$)	2.22	82	127	0.196	0.4	2.4	\$ 1,554	\$ 842
Durban Deeps (Rand)	20.65	184	454	1.040	16.3	5.7	\$ 2,467	\$ 1,978
Ashanti (US\$)	7.34	127	932	1.800	27.8	14.2	\$ 7,340	\$ 4,961
Anglogold (Rand)	243.00	223	6473	9.500	68.3	42.6	\$ 29,028	\$ 14,910
River Gold (C\$)	2.55	31	55	0.094	0.3	3.0	\$ 1,785	\$ 1,061
Sons of Gwalia (A\$)	2.00	122	171	0.418	4.9	3.4	\$ 1,400	\$ 1,199
Randgold Resources	15.51	28	428	0.421	0.5	15.2	\$ 15,510	\$ 5,336
Harmony Gold (Rand)	105.00	184	2308	2.667	38.0	14.5	\$ 12,543	\$ 5,073
Placer Dome (C\$)	15.90	408	4541	5.600	52.9	13.7	\$ 11,130	\$ 4,804
Goldfields (Rand)	93.98	456	5117	4.500	78.9	9.9	\$ 11,226	\$ 3,455
Eldorado (C\$)	2.55	102	183	0.105	4.1	1.0	\$ 1,785	\$ 359
Lihir Gold (A\$)	1.38	1142	1103	0.693	16.7	0.6	\$ 966	\$ 212
Meridian Gold (C\$)	16.55	76	880	0.456	2.1	6.0	\$ 11,585	\$ 2,100
Newmont (US\$)	33.10	401	13273	7.500	83.2	18.7	\$ 33,100	\$ 6,546
Bema Gold (C\$)	2.08	243	354	0.100	3.1	0.4	\$ 1,456	\$ 144
Barrick Gold (C\$)	24.10	541	9127	3.832	86.9	7.1	\$ 16,870	\$ 2,479
Iamgold (C\$)	6.65	144	668	0.252	3.5	1.8	\$ 4,655	\$ 615
Goldcorp (C\$)	16.21	193	2190	0.580	4.3	3.0	\$ 11,347	\$ 1,052
Agnico-Eagle	15.88	70	778	0.220	4.0	3.1	\$ 11,116	\$ 1,100
Glamis Gold (C\$)	11.30	83	658	0.220	3.2	2.6	\$ 7,910	\$ 925

In this analysis, only Queenstake, Northgate, and Canyon Resources give you the opportunity of acquiring gold through shareholding that costs less than what the attributable gold is worth. Of course, this only represents gold in the mine plan and if the company can't extract it profitably, then there goes your hidden value! Use the regular operating/corporate cost and gold premium for that understanding.

If the stated proven/probable reserve base is used instead of production figures, then the only companies with the attributable gold worth less than the cost of the 1000-share block are Randgold Resources and Goldcorp. If you could pay US\$1,290 for production + reserve

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gold of US\$138,005, would you do it? As an astute Member in Minneapolis knows, all Canyon Resources has to do is get the cyanide use restriction in Montana lifted and then you'll be able to! And no, I wouldn't mention this if Canyon's giant MacDonald deposit had NO chance of economic reality...

A portfolio manager Member in Ontario suggests that in the absence of news (except for increasingly interesting quarterly reports, Queenstake may make a good trading vehicle). It may well be, if you want to. Queenstake is still a great long term 'buy & forget' for impending value creation.

> **MINING INSIGHTS LAST WORD**

The July 2003 issue is likely to be quite an exciting one – the summer exploration spectacular, as drills are turning round the MII Partner exploration world. If you are a MacMillan Gold shareholder, be advised that I shall be visiting the Cerro Oro property with the intention of taking check samples in trenches and around the +1 g/t gold contour from geochemical sampling. Watch for that and some great explanatory photos.

I will also be visiting Western Silver's Penasquito deposit this summer in late July just as the drills start turning again, and a trip to Red Lake, Ontario is planned to check on the progress of MII Partner companies in that area.



Until then....

Thanks and regards,

**Jim Steel MBA
P.Geo.**

Managing Director,
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