

## MINING COMPANY FUNDAMENTALS 101

In my last article (See [http://www.gold-eagle.com/editorials\\_05/schwensen012606.html](http://www.gold-eagle.com/editorials_05/schwensen012606.html)) I made reference to a handful of factors that I believed were important when considering purchasing shares in a mining junior. Today I intend to go through each attribute in more detail. By incorporating these factors into a purchase decision it is my belief you stand a better chance of successfully negotiating the minefield that is the junior mining sector.

Before we proceed:

**Warning! Warning! Warning!** The following contains material that could put an insomniac to sleep and no I am not joking!! However, I wouldn't put you the reader through this if I didn't think the content was beneficial.

### 1. Significant Insider Ownership of Shares (Ideally 5% + of the Outstanding number of Shares)

The single best way of aligning management's interests with shareholders is for management to put their money where their mouths are and buy a reasonable stake in the company (Ideally 5% + of outstanding shares). It is my experience that management who own a reasonable stake in the company, are generally more responsible in managing share capital. They are less likely to dilute shareholder wealth with excessively undervalued capital raisings coupled with ridiculously generous freely attached warrants and options.

#### Source:

**Australian:** A company's annual report which you can find on the company website or going through company announcements which can be found at the following site:

<http://www.asx.com.au/asx/statistics/announcementSearch.do>.

Changes in Director Interests are also reported in company announcements which you can also find on the above website.

**Canadian:** Canadians can find this information at the following website:

[SEDI](#)

### 2. Options/Warrants issued (The smaller the % of Total Warrants/Options as a ratio of overall Shares Outstanding the better)

Excessive warrants and options are a stock price's worst enemy. Back in early 2004 I bought into a Canadian mining junior at \$1.50 without studying the outstanding warrants, only to find the share price free fall without any idea as to why. I later found out the company had issued a large quantity of warrants exercisable at \$0.60. The share price was trading at close to \$2.00 when the new shares became free trading. The opportunity to take profits was too good to resist and everyone hit the exit doors at once. Companies that have quality assets and a promising story to tell shouldn't need to rely on excessively generous warrants and options deals to successfully complete capital raisings.

**Source:**

**Australian:** Australian companies primarily use options and a summary of these can be found in the annual report or the latest **Appendix 3B** notice announcements as per the ASX site listed above.

**Canadian:** The Options/Warrants position is provided in the Quarterly reports which can be found at the following site in the **financial statements** section: [Search for Public Company Documents](#)

### **3. Net Current position (Cash) (The larger the ratio of Net Current Position to the Market Capitalization of the company the better)**

Cash is the life blood of any junior mining company. When buying a position in a company, it is important to ensure there is enough cash to fund near term (12 months at least) activities. (If you are unsure email the company) Neglecting to take this into account leaves you vulnerable to capital raisings. This can have a detrimental impact on the share price, depending on how generous the offer is and the market conditions at the time. If you like a mining junior and they happen to be low on cash, wait for an inevitable capital raising and either participate or buy the shares on the market around the issue time.

**Source:**

Net Current position is a company's **Current Assets** less **Current Liabilities** which incorporates its cash position and any money owing from or owing to third parties over the following 12 months. It can be calculated from the Balance sheet in Annual, Half Yearly and Quarterly reports (Use the above websites to find them).

### **4. Debt (Interest Bearing Liabilities) (The smaller the ratio of Debt to market Capitalization the better)**

Debt is not an attractive quality for a mining junior that generates no cash flow and has no near term producing assets. It is rare to see a developing mining company with large quantities of debt but it does happen. Interest costs are a sure fire way to burn existing cash levels at a faster rate than normal. As a general rule we try to avoid early stage mining juniors with debt.

**Source:**

The Balance sheet in the Non-Current Liabilities section (Above websites).

### **5. Share Valuation Alternatives**

There are a number of ways to ascertain whether a mining company is good value. These methods vary vastly in complexity. At the end of the day you have to use a method that you are comfortable with and you can understand. There is no use attempting to embark on complicated levels of analysis if at the end of the day you come out more confused than what you were going in! What's more if you don't understand what you are doing, the result is likely to be dangerously meaningless anyway. The two methods I am going to introduce to you today are poles apart in their respective levels of complexity. The first is relatively simple and can be done I believe by almost anybody. The second method is somewhat more complicated and is based on the method investment houses use when ascertaining the value of a mining company's assets (Optional reading).

## Enterprise Value per Unit of metal in the Ground

This is simply the Enterprise value of a company divided by the quantity of metal its projects have in the ground. If a company has many metals it is determined using the primary one.

### Step 1 Calculating Enterprise Value (EV)

The **EV** of a company is the value the market is attributing to its projects net of any financial assets and obligations the company might have. It is calculated as follows:

**Market Capitalization:** (Outstanding Number of Issued Shares Multiplied by the Current Share Price)

#### Source:

**Australian:** Look for the latest Appendix 3B announcement for the respective company using the ASX website above where you will find the latest outstanding number of shares.

**Canadian:** Look up the latest Quarterly Financial Report using the following website: [Search for Public Company Documents](#) and look for the **Share Capital** note in the back of the financials.

Alternatively you can go to the company's website and find the information there. <http://www.goldsheetlinks.com> is a great website to find a mining company's webpage (Most international mining companies listed).

Less

### Net Current Position

#### Source:

**Current Assets** less **Current Liabilities** in the balance sheet found in the latest financial reports as per above.

Less

### Investments

#### Source:

The **Non-Current Asset** section of the balance sheet.

Adding back

### Debt (Interest Bearing Liabilities)

#### Source:

**Non Current Liabilities** section of the Balance Sheet

## Step 2 Calculating the primary metal in the Ground

This is a case of looking at each project a company has and adding all the:

### **The Proven and Probable reserves (If any)**

Plus

**The Measured, Indicated and Inferred resources** (Take care to ensure the Measured and Indicated resource recorded is additional and not inclusive of proven and probable reserves).

### **Source:**

A company's website in the projects section or the latest annual report.

## Step 3 Calculating the Enterprise Value per unit of metal in the Ground

The last step is to take the **Enterprise Value (Step 1 Result)** and divide it by the **Metal in the Ground (Step 2)**. The resulting number is what you are paying per unit of metal in the ground by buying shares in the company. The theory is the lower this number the better.

### **Limitations**

I have seen this method used quite extensively and whilst I quite like its simplicity, there are a number of limitations that must be considered. Firstly not all metal in the ground is created equally. An inferred resource is the least reliable category and generally speaking it is not worth the same as measured and indicated resource which is better defined. Some projects have had feasibility studies done proving their economic viability, whilst others have not. Some projects may have more than one metal which can also throw out the accuracy. However, all these things can still be considered when comparing results and simply need to form part of the decision making process. It is important to compare companies with similar style projects. Two additional indicators that can assist in gaining some perspective of the difference in deposits and the respective mineral value of the company include:

1. **Gross Metal Value per Ton**
2. **Gross Metal Value Multiple of Enterprise Value**

## **Gross Metal Value per Ton of Ore (GMVT)**

By performing a calculation to determine the GMVT you can take into account additional metals that may be contained in the deposits and assess how rich the respective ore deposits are. Generally speaking, the higher the GMVT the better the economic potential of the deposit. Again comparability of the deposits is of the utmost importance when using these indicators. For example a near surface Gold deposit which is amendable to Open pit mining does not require the higher grades of a deep underground deposit where Capital costs are significantly higher.

## **Step 1 Calculating the Gross Metal Value (GMV) in the Ground**

To calculate GMVT you need to firstly determine the gross metal value of the metal in the deposit by taking the resource and reserves (As done so above in the EV section) and multiplying these figures by metal prices (Either current or long term average) to give you a GMV.

**Source:**

The information to calculate this figure can be found on the company's website in the projects section or the latest annual report.

**Step 2 Divide the Gross metal Value by the total tonnage**

Once you have determined a GMV you divide this by the total tonnage of the deposit to get a value per ton.

**Source:**

The information to calculate this figure can be found on the company's website in the projects section or the latest annual report.

**Gross Metal Value Multiple of Enterprise Value (GMVMEV)**

Unlike the EV this takes a look at the overall metal value of the company as a multiple of its enterprise value, taking into consideration all the metals as opposed to just the primary metal. The higher this multiple the better the development leverage in the event a production decision is ultimately reached on the project(s).

**Step 1 Calculating the Gross Metal Value in the Ground**

To calculate the GMVMEV you firstly calculate the gross metal value of the resource and reserves as calculated for the GMTV calculation above.

**Source:**

The information to calculate the gross metal value can be found on the company's website in the projects section or the latest annual report.

**Step 2 Divide the Gross metal Value by the Enterprise Value of the Company**

Taking the Gross metal Value you then divide it by the Enterprise value as calculated in the EV per unit of metal calculation above to give you your multiple.

**Net Asset Value (NAV) (Optional reading for anyone interested otherwise skip to Item 6)**

This method whilst more involved than the first is my preferred due to the fact that it caters for a lot of the limitations we have just discussed. It is calculated as follows:

**Step 1 Calculating Net Present Value (NPV) for Project(s)**

For companies with projects with at least a pre-feasibility study we can establish an NVP. An NPV is a value calculated by summing a project's expected future cash flows and then discounting them back to present day value using a discount rate that reflects the time value of money. It is perfect for valuing mining projects in that it allows for the differing life span of mines, the variety of metals, the differing metallurgical complexities (That is the metal recoveries) as well as the infrastructural differences of projects (Some projects are in remote locations, some are close to existing infrastructure). It is important to note that the effectiveness of this method like any other method is **as good as the information used**.

**Source:**

Company announcements using the above websites, or alternatively the company website under the project section. Care must be taken when using company numbers to ensure they have used an appropriate discount rate (8-10% at least) and use consistent metal prices with other companies you are comparing. For this reason we find it preferable to calculate our own NPV's as this ensures consistency in the assumptions used.

## **Step 2 Calculating a Metal Valuation for Projects (Without feasibility studies)**

For projects that have just a resource in the ground (No feasibility study) we use a method called the **In-situ Resource (or Yardstick)** method. It assigns a different value for each metal (% of spot price) with more value being assigned to better proven measured and indicated resource than the less reliable inferred category. Whilst still very subjective it does at least cater for the variety of different metals as well as the alternative categories. The key here is consistency. Ensure you apply the same rates across all the companies you look at.

**Source:**

The % of the spot price you use is a case of personal preference. RSG Global uses a range of between 2.5 - 4% and considers an array of factors such as physiography, infrastructure and proximity of a suitable processing facility when arriving at the appropriate rate. In a KPMG report I read recently I saw them use 0.5% for inferred; 2% for indicated and 5% for measured (Again these are just indicative numbers).

## **Step 3 Adding Additional Investments and Net Current Position less Debt (Interest Bearing Liabilities)**

The next step is to add any Investments to the Net Current position and then subtract any debt to arrive at what the company is worth aside from its projects. You use the same information we used when establishing the Enterprise Value of the company.

## **Step 4 Establishing the Net Asset Value**

The last step is to add the dollar values of **Step 1, Step 2** and **Step 3** and divide the result by the **total number of outstanding shares** to arrive at the **Net Asset Value**.

Generally speaking the closer a company's project is to a production stage, the more likely it is to trade closer to its NAV or a multiple of its NAV. Companies with projects in varying stages of the feasibility study process will generally trade anywhere from 20 – 75% of their NAV. I want to emphasize that these numbers are more useful for comparative purposes than coming up with useful target prices. We like to take between 3 – 6 comparable companies and establish an average discount/premium to NAV. By doing this you can pay closer attention to the companies that trade at a substantial discount to the average.

## **6. Mineral diversity (The more variety the better)**

By speculating in companies that are developing projects with mineral diversity you mitigate a lot of the risk associated with dealing in a single metal. A company that develops a Gold/Copper porphyry deposit for example can have as much as 50% of its value in Copper and 50% in Gold. This means any underperformance in the Gold price can be negated by stronger copper prices and vice versa. Alternatively the company may be developing a number of projects with differing mineral emphasis.

## **7. Project diversity (The larger the number of projects the better)**

For the same reasons that dealing in one metal can be risky, developing a sole project can also be risky. A company that is in the process of developing many projects will not be nearly as detrimentally affected by an unexpected event as say a company that has put all its eggs in one project. Therefore targeting companies with a wide array of projects can also be beneficial.

## **8. Political and Environmental Protection Risk**

Obviously all projects are not created equally. Some are in politically safe countries like Australia, Canada and the United States whilst others are in areas which are less politically stable. This needs to be considered because on a valuation basis, companies that have projects in Uzbekistan trade at a discount to similar companies with projects in Canada and probably always will. Alternatively, environmental constraints also need to be considered, as many developed countries have very strict environmental standards. (In my experience the two types of risk can often negate each other out.)

## **9. Hedging Commitments (Smaller the ratio of hedged metal to mineable reserves the better)**

This becomes relevant when looking at producing or near term producing companies. Obviously with Gold prices at levels substantially below fair value you want to invest in companies that can take full advantage of the anticipated price appreciation.

The reality is banks that finance the development of many of these projects insist on a portion of the future production being hedged. You need to look for companies with minimal hedging. On average Australian producers have 20-25% of their reserves hedged (Very annoying!!)

## **10. Management (The more experienced the better)**

I mentioned in my previous article that the management of a company was one of the most important factors. Unlike the other key components, management is not something that is easily quantifiable. Being able to assess management comes from experience in the industry. We like to ask the following two questions:

- What is the company ultimately trying to achieve? For example they might be working towards developing a Silver mine in Mexico.
- Does the company have a management team that has the experience to achieve this end goal? That is, have they successfully been involved in developing a mine before? Do they have experience working in Mexico?

It's essentially no different to a job interview. You are not going to employ someone to build your house if they are only skilled in one facet of the job such as roofing or brick laying. Many of the people involved with mining juniors have next to no experience in developing a mine. Many of them also have no intention of developing their projects to a production stage and intend to sell the project to the highest bidder if they can successfully prove up an economic deposit.

## CONCLUSION

If you are still with me congratulations on going the distance!! I hope the factors I have discussed today have given you some insight into applying a fundamental approach to trading mining companies. I appreciate keeping a handle on this sort of information is time consuming and probably beyond many of you due to the usual time constraints of every day life. This is one of the reasons we have decided to set up the newsletter and website. It will be for anyone who is interested in applying a fundamental approach and will be focused on predominantly Australian and Canadian mining juniors (Not just precious metals). Many of the things discussed will make a lot more sense when seeing them applied in real life examples.

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