Gold Streaming: The application of Volumetric Production Payments in financing gold mine development in Australia

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Gold streaming is a new method of financing gold mine development in Australia. Its adoption has been encouraged by the difficulties encountered in obtaining finance for mine development. Gold streaming involves a streaming company providing mine development finance in exchange for receiving volumetric production payments (VPPs). These are in the form of having the right to acquire a certain percentage of the amount of gold produced over the life of the mine at a predetermined price per ounce.[1]

Gold streaming is an attractive financing option because VPPs are cheaper than equity because there is no shareholder dilution, and are more flexible than debt. Streaming agreements allow the mining company to capitalise on proven reserves before the operation becomes productive. The underwriting financier or streaming company enjoys any resource upside while avoiding the downside risk associated with mine operation. Stream financing allows the mining company to leverage proven ore reserves to fund production or expansion while avoiding the many negative side effects associated with traditional mine financing methods.[2]

The first gold streaming deal in Australia

The first gold streaming arrangement in Australia was announced in December 2012 by Mutiny Gold Ltd, which obtained development finance from Sandstorm Gold Ltd of Canada, for its Deflector gold/copper mine in Western Australia.[3] This was a $US43 million funding agreement via a Volumetric Production Payment arrangement in the form of a Metals Purchase Agreement (MPA), which will finance a significant portion of the Deflector mine capital costs. The balance of the expected $102 million[4] mine development costs will be met by bank project finance of $50 million being arranged with Credit Suisse and other banks, in conjunction with $11 million finance leasing of the project's accommodation village.

The MPA involves Mutiny contracting to sell to Sandstorm 15 percent of Deflector's gold production (the copper is not included) over the life of the mine at the lesser of $US500 or the prevailing gold price, for each ounce produced. In consideration Sandstorm pays Mutiny an up-front cash payment of $US9 million, and a further $US29 million on grant of the mining licence. If Mutiny produces more than 50,000 ounces in a given year Sandstorm will make a further one-off payment of $US4 million to Mutiny Gold. Mutiny has the right, but not the obligation, for a period of 36 months from the date of the second deposit of $US29m to repurchase, whole or in part, up to half of the gold stream sold to Sandstorm by making payment equal to the greater of $US24.7 million or the value of 14,742 ounces of gold at that time. If Mutiny were to exercise

this option in full it would reduce Sandstorm's share of production under the arrangement from 15 percent to 7.5 percent.

Figure 1: *Mutiny Gold's Deflector Mine in the South Murchison, Western Australia.*

Source: Photograph courtesy Mutiny Gold Ltd, 2011.

Analysis of the first deal

The effect for Mutiny Gold is that it is monetising now some of its as yet un-mined gold reserves, and the receipt of these funds will enable Mutiny to establish the mine and bring it into production. The advantage for Mutiny in this gold streaming arrangement is that it raises crucial mine development finance but avoids the dilutive effect of trying to raise equity from shareholders. At the time the deal was announced Mutiny's share price was 10cents, and it has since sagged to 8cents because of the falling gold price. Attempting to raise substantial equity capital from shareholders at these levels would have required the issuance of hundreds of millions of new shares, ballooning the company's capital structure. The injection of $US38 million through the streaming transaction before commencement of production will not only allow Mutiny to start to build the mine, but will also provide considerable comfort to Credit Suisse and the other banks negotiating involvement in the provision of the balance of the mine development finance. Mutiny Gold's management views the gold streaming as advantageous in that it is a form of project capital that is more dynamic and less dilutive than equity but also less restrictive in its timing and use, allowing more ongoing structured finance for the mine project. Mutiny can reduce Sandstorm's influence through the claw-back provision if the gold value or resource changes. Mutiny management feel they can control the deal dynamic.[5]

The Deflector mine MPA deal was also manifestly beneficial for the gold streaming company Sandstorm Gold. When it was announced the gold price was $US1,700 an ounce so it appeared then that in its first transaction in Australia Sandstorm could achieve a possible surplus of $US46 million on its $US73 million outlay (at that gold price). Compared with the $1,700 per ounce gold price, Sandstorm could expect to receive some 70,000 ounces of gold at a cost of $US1,043 per ounce. From Mutiny's published ore reserve figures the 15 percent gold stream should yield Sandstorm 60,000 to 80,000 ounces of gold over the life of the mine.[6] If Sandstorm receives in the middle of that range, that is 70,000 ounces, its cost would be $US73 million (comprising $US38 million upfront, plus $US500 per ounce for the 70,000 ounces – another $US35 million) and this could yield a possible return of $US119 million at that gold price.

Gold streaming company returns are at hazard to fluctuating gold prices, but that risk can be reduced or ameliorated by selling gold forward. That strategy eliminates the upside benefit of gold price increases, but it does lock in the expected profit.

Mutual benefits from gold streaming

This first gold streaming deal in Australia is mutually beneficial to both companies involved. Of course for any gold streaming deal to be concluded it must be expected to be mutually beneficial. Whichever company gains the greater benefit in a gold streaming arrangement depends upon their relative astuteness in bargaining, tempered by the acuteness of the mining company's need for development finance and the streaming company's expectation of future gold prices, and the extent of competition among gold streaming companies seeking business. Under current conditions with fairly high gold prices, albeit off their peaks, and very low interest rates reducing the discount applied to the discounted cash flow calculations of the present value of a future stream of royalty income, producers are in a favourable position. They receive the upfront cash with little in the way of security restrictions unlike the situation with traditional project finance.

In comparison, the streaming company is accepting more risk, not only to do with future gold prices. Streaming companies have to have considerable expertise in appraising the mine project and in undertaking due diligence; and in subsequent monitoring of the mine operation, although streaming companies are not involved in mine management. One possible problem which could arise is where the stream is based on one commodity of a mine producing several, resulting in a divergence of priorities between the mining company and the streaming company. Take the hypothetical case of a large copper/gold porphyry project where the main value to the developer/operator will be the copper, while the secondary credit is the gold that can attract streaming finance. Once the project swings into action the incentive will be for the operator to maximize the primary source of income, which is copper production. By adjusting the metallurgical process the percentage copper recovery can be tweaked upwards to the detriment of the percentage gold recovery, and the streaming company might not be receiving the levels of gold anticipated from the feasibility studies.[7]

However, despite the fact that the provision of streaming can be fraught with risk, there are now several new entrants in this field attracted by the spectacular results of the pioneer companies.[8] These companies are mainly formed in Canada, but there will be a new Australian company – Royalty Stream Investments - formed in December 2012, which intends applying the royalty/streaming model to build a diversified portfolio of mining and energy projects providing greater growth potential than a traditional mining company. Investors in it will gain leverage to commodity prices without the downside of exposure to capital expenditure.[9] Royalty Stream Investments is seeking backing from Private Equity, but may list through an initial public offering (IPO) in several years' time.[10]

Research analyst, Aaron Careaga, sees royalty streaming likely to be a major catalyst driving mining industry growth.

> As more junior exploration and production firms learn of such equitable financing agreements, and investors see the return opportunities and niche industry performance, royalty stream financing will likely become a common and integral tool utilized by most operators in need of capital in the mineral extraction space.[11]

Royalty stream agreements can shape the future of the mining industry by increasing the number of available capital sources, promoting further exploration and production. Relative to traditional financing vehicles, the attractive nature of streaming agreements creates a unique opportunity that meets the needs of both investors and mine operators. By leveraging proven reserves to fund production or expansion, both parties are able to achieve higher returns and promote continued growth.[12]

Royalty companies

What are royalty companies? A royalty is a payment to a mining property interest holder by the mine operator usually based on the amount of mine production. Sometimes this is a flat mount of so many dollars a tonne produced, but more usually it is a percentage of the value of production such as a net smelter return royalty, or, a percentage of the gross value of production, a gross proceeds royalty.

Streams are metal purchase agreements that provide, in exchange for an upfront payment, the right to purchase all, or more usually a portion, of one or more metals produced from a mine at a preset price. Streams are not considered to be royalties because of the ongoing cash payment required to purchase the physical metal – as in the case of the Deflector mine MPA. The first company to apply the streaming finance model was Canadian company Silver Wheaton, which has been very successful since its formation in 2004 with the increasing silver prices. It now has market capitalisation of $13 billion. Two former executives of Silver Wheaton formed Sandstorm Gold that is involved in the Deflector mine agreement.

An Australian royalty company, Royalco Resources Ltd was formed in 2001, and it has established itself within a niche category in the mining sector with an asset portfolio comprising royalty interests and exploration assets. This approach reflects the

very successful business model originally developed in North America by Franco-Nevada. Royalty revenues are generally exposed to fewer risk factors than investment in exploration activities, and Royalco has a portfolio of ten royalty interests.[13] Most of these were acquired from Rio Tinto Exploration in 2002 as a package deal, in which Royalco Resources paid the required cash amount and Rio in turn took a small equity in Royalco Resources with part of the proceeds.[14]

Royalties are not as common in Australia as in USA because minerals here are vested in the State, but in USA they vest in the landowner who is usually granted a royalty by a company seeking to develop minerals on his property. Royalties can also arise through change of property ownership between mining companies.

Royalty companies offer investors exposure to the gold price without some of the daunting risks associated with operating a mine. Gold streaming companies offer a similar appeal to that of the royalty companies but there is one key difference, although the companies make similar investments in the development of the mine. Whereas the royalty firm obtains a percentage of net or gross revenues, the streaming company enters into a Gold Purchase Agreement that is a Volumetric Production Payment arrangement, whereby, in exchange for the provision of development funds, the streaming company is entitled to purchase a certain percentage of the mine's production at a fixed price over the life of the mine. This is the finance model of the Deflector mine transaction between Mutiny Gold and Sandstorm Gold, the first gold streaming deal in Australia.

Royalty transactions continue to be made in Australia. In November 2012, Aphrodite Gold Ltd announced that Franco-Nevada, described by Aphrodite's chairman as 'the largest and most successful gold and metals investor in the world', had agreed to purchase a 2.5 percent royalty in Aphrodite's Project in WA for $2.5 million.[15] The $2.5 million is in the form of an advance that bears no interest and requires no repayments for five years, and provided production at Aphrodite's Project commences within five years, it converts to a 2.5 percent royalty. Should production not commence within five years Aphrodite will make annual payments of $250,000 to Franco-Nevada, with such payments to be fully offset against royalties when the Project does commence production.[16] The $2.5 million will be used to accelerate Aphrodite's exploration and the production of a feasibility study, with production at the Project expected to commence in 2014. Ongoing involvement is anticipated with Aphrodite Gold saying it will be 'pleased to offer Franco-Nevada the opportunity to provide the required capital expenditure for production', and Franco-Nevada's Australian managing director, Kevin McElligott, is quoted as saying,

> As the provision of stream financing is a growth area for our company, we would in future consider stream financing a portion of the capital expenditure upon completion of a positive definitive feasibility study.[17]

In addition to its royalty from Aphrodite Gold, Franco-Nevada Australia has a series of royalties on other mines in Australia,[18] which were acquired from Newmont in 2007 as part of a $1.2 billion portfolio acquisition.[19] In January, 2012 Franco-Nevada paid

Navigator Resources Ltd $4.5 million to increase its royalty rate on Navigator's Bronzewing mine in W.A. from I percent to 2 percent.[20]

Franco-Nevada

The pioneer royalty and later gold streaming company, Franco-Nevada, has had a startling rise from a 'penny stock' to a $US5 billion leviathan. Seymour Schulich and Pierre Lassonde formed Franco-Nevada in Canada as a small gold exploration company in 1982. In 1986 it outlayed $US2 million to acquire an existing 4 percent royalty on the Goldstrike mine in Nevada, owned by Western States Minerals, which was producing about 44,000 ounces of gold a year. A few months later, Barrick Resources Corporation purchased the mine, which was subject to the royalty. It soon discovered considerably more gold ore on the property and Goldstrike was on the road to becoming the biggest gold mine in US history.[21] The $US2 million royalty was soon earning Franco-Nevada $US23 million annually. Adeptly applying this free cash flow, Schulich and Lassonde rapidly developed and extended the royalty model to other gold mines, and later developed gold streaming that allowed Franco-Nevada to expand exponentially.

In 2002, Newmont acquired Franco-Nevada along with Normandy Mining. In late 2007, Franco-Nevada Corporation was spun off with a number of Newmont royalties and mining interests and completed a $CAN1.1 billion initial public offering, the largest mining IPO in north American history, and listed on the Toronto stock exchange. Today Franco-Nevada has a market capitalisation of some $CAN5 billion.

There is one particular obverse effect of spectacular bonanza returns from royalties resulting from surging gold prices or unexpected discoveries of additional ore reserves and dramatic increases in gold production from a mine This is the harmful effect on the mine company of the cost of the zooming royalties that is out of all proportion to the original funds received, for which the royalty had been granted. One example illustrating this is the case of Australian iron ore miner Fortescue Metals Group.

Billionaire hedge fund manager Ian Cumming arranged for his Leucadia hedge fund of New York to invest in Fortescue in 2006 when it was a relatively unknown iron ore hopeful in need of funds to develop its mines. After a due diligence analysis noted for its perspicacity, Leucadia invested $400 million for a 9 percent interest in Fortescue, and paid $100 million for an unsecured note that would earn a 4 percent royalty on Fortescue's mines.[22] Within two years the iron ore price took off with the voracious demand from China, and Fortescue shipped its first ore in 2008. Output soared astonishingly and by 2010 annual shipments had reached 40.9 million tonnes per annum. That year, Leucadia received royalty payments of $227.8 million on its $100 million note. Little wonder that Cumming boasted in Leucadia's 2010 annual report that 'this is, has and will remain a delicious investment'. Fortescue naturally wished to acquire and extinguish this royalty that was costing it hundreds of millions of dollars every year. However it was not until the iron ore price slump in late 2012 that it was able to do so – at a cost to Fortescue of $US715 million (then $681 million). By the

time it was sold, Leucadia's $100 million royalty note had earned it $1.2 billion. Leucadia also sold all its Fortescue shares, and its total return was some $2.7 billion.[23]

Historical mine financing

Historically, Australian gold mining companies funded gold mine development by raising equity capital from shareholders, either through an IPO or a share issue, or by entering into a joint venture with a major company with more financial resources and expertise, or with mezzanine bank finance in combination with these. All of these avenues are now fraught with difficulties

Raising Equity

In earlier times the discovery or acquisition of a payable gold mine by an exploration company resulted in an increased price of that company's shares on the Stock Exchange as investors anticipated a change of fortune, profitable production, and possibly the payment of dividends. The company raised capital to develop the mine for production by issuing shares at a discount to its share market price to its shareholders through renounceable rights issues, with the rights traded on the Stock Exchange. This allowed shareholders who were unwilling to invest further, or who could not take up the new issue, to sell their rights in the market. This arrangement was fair to all shareholders as it protected their percentage equity in the company, or their value of it.

In 2001 Australian companies were required to prepare a product disclosure document with an offer of shares.[24] This was in effect a prospectus, and was very costly and time-consuming to prepare. The rationale for this requirement was to ensure that investors had access to all the information required to make an informed investment decision, but the effect was to curtail sharply the number of renounceable rights share issues. However, the Corporations Act 2001 also allowed the use of Share Purchase Plans (SPPs) to raise equity capital. SPPs give existing shareholders a convenient means of obtaining additional shares that are priced at a discount to the market price during a particular period, without brokerage fees or stamp duty. Shares are usually offered in lots of $5,000, $10,000, or $15,000 worth to each shareholder. There is a limit of $15,000 worth of shares that can be offered to each shareholder in any 12 months period. It was recognized that as the amount to be raised from each investor under a share purchase plan was relatively small, the cost of preparing, printing and distributing a prospectus for that offer would be quite high compared to the amount being raised, so shares could be offered through SPPs without a prospectus or a Product Disclosure Statement. Many companies raised equity capital through this mechanism, usually also offering a large placement at the same discounted price to large institutions.

One effect of the SPP arrangement was to destroy the notion of the maintenance of shareholders' percentage equity in the company but SPPs were popular because of the discount of the issue price to the market price, and this resulted in considerable equity capital for mining being raised. However in the volatile and depressed markets after the Global Financial Crisis, it was found that with an SPP capital raising, mining company shares generally fell to the discounted issue price, and failed to recover after the issue. The discounted issue price seemed to establish a ceiling price. This destroyed

the attraction of the Share Purchase Plan arrangements. It was also the case that in the volatile and depressed markets after the Global Financial Crisis, shares generally fell to the discounted issue price for an SPP capital raising mining company, and failed to recover after the issue. The discounted issue price seemed to establish a ceiling price. This destroyed the attraction of the Share Purchase Plan arrangements.

On 1st August 2012, in a move to assist smaller companies to raise capital**,** requirements for smaller listed companies outside the S&P/ASX 300 Index, and with a market capitalisation of less than $300 million, were relaxed From that date such companies have been able to issue up to 25 per cent of their issued capital to raise new capital, subject to shareholder approval at the AGM.

One of the main factors discouraging investment in gold shares in Australia in recent years has been the disappointment of investors with the failure of the profits of the gold miners to match soaring gold prices.

Joint Ventures

The introduction of a major, well-funded mining company to a joint venture was often the solution to the financing difficulties faced by small companies. These would usually negotiate a free carried interest to a certain level of expenditure or milestone in the mine development, like the production of a definitive or bankable feasibility study. Such joint venture and farmout arrangements were unattractive to many junior companies because of a marked reluctance to lose control of their project, even though having a smaller percentage of a fully-funded mine project would appear to be preferable to having 100 percent with no funding and the likelihood of eventually losing the project. The joint ventures entered into sometimes encounter problems because the priorities of the major company might not be aligned with those of the junior. Thus development of the mine might be delayed, or the major might push on so aggressively that the junior company would be unable to keep up its end and fund its share of expenditure. Consequently it would be reduced to a small free carried interest or royalty.[25]

Bank mezzanine finance

There was one particular problem for many smaller Australian gold mining companies that did obtain bank finance to develop their mine. This was the requirement of the banks for the mining company to eliminate one risk factor from the loan equation by selling gold forward so as to ensure the covering of the loan repayment independently of future gold prices. Many companies established mines in the 1990s, a period of relatively depressed gold prices, and at the behest of their banks they entered into these forward sales transactions when gold prices were low. Subsequently the price of gold doubled, and in more recent years trebled. The result – they have been unable to take advantage of these increases because of their forward sales commitments.

Because of the Basel III banking requirements,[26] providing bank finance for gold mine development is now not attractive for banks, and some gold mining companies are encountering difficulties in obtaining mezzanine finance from banks.[27]

Also the increased regulatory capital requirements for banks are making this source of capital more expensive.

The gold streaming arrangements as developed in recent years in Canada and the USA appear to be suited to helping to fill the financing void facing the Australian gold mining industry. Although a quality mine with first class management will always be able to find development funds in Australia, there certainly seems to be need of this type of mine development finance in this country.

There are now some dozen royalty and metal streaming companies in Canada and USA. As the competition becomes fiercer and as the 'low hanging fruit' (in the industry parlance) is plucked and the better quality transactions are snapped up, it is not unlikely that some of these companies will follow the lead of Sandstorm Gold and seek streaming deals in Australia.

Mine finance needs in Australia

There is a significant backlog of natural resource projects in Australia that will require financing. According to an October 2012 report of the Bureau of Resources and Energy Economics there were then 77 coal projects ($88 billion), 14 copper projects ($10 billion), 25 gold projects ($2.7 billion), and 19 other base metals projects ($7.9 billion) in the investment pipeline in Australia.[28]

Despite increased exploration budgets, there has been a lack of sizeable gold discoveries in Australia over the past decade. The size of the deposits being discovered has diminished, while capital costs have increased. There is obviously a need for more adventurous finance outside the bounds of traditional project finance if these smaller deposits are to be developed.

The lessening availability of traditional finance for mining is a concern, with more junior companies chasing a shrinking pool of capital. According to the ASX, the number of listed resource stocks grew to 991 in 2012, with new listings raising $248.4 million between them. Another 44 companies joined the ASX list in 2012, down from 93 new miners and explorers listed in 2011. It has been estimated that the 300 junior resource companies joining the ASX in recent years will need to secure about $2 billion a year to maintain their businesses and carry out basic exploration.[29]

The availability and difficulty of sourcing funding are major challenges, with 68 percent of companies surveyed in an industry position survey saying they expected to raise capital in the next 12 months.[30] For a significant number of companies the requirement to raise capital in the short term is apparent, with 35 percent of the companies surveyed holding less than $2 million in cash, and a further 29 percent holding less than between $2 million and $5 million. With the problems of raising additional funds there will be pressure to move towards alternative, more adventurous funding mechanisms.

Enter the gold steaming companies that offer mine development funds in exchange for royalty deals and gold streaming arrangements with volumetric production payment schemes in the form of metals purchase agreements. In the absence of a

recovery in the equity markets for gold mining stocks, Australia appears to be on the cusp of adopting a new mechanism in the provision of gold mine development finance.

NOTE: *All references to company share prices and the gold price in this paper were made at the market prices at the time the paper was written in March 2013.*

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Endnotes

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