

## Investment basics – XII

### An introduction to gold mining tax

#### Part 2

In Part I we looked at a simple lease and tax calculation for a mine which was making profits and had been paying tax in the past. Let us commence Part 2 by looking at the more complicated example of a new mine. As in the previous example we will use formulae of  $Y = 15 - \frac{120}{X}$

for lease and  $Y = 60 - \frac{480}{X}$  for tax with capital allowance rates of 6% and 10% respectively. Assuming revenue, profit and capital expenditure as set out in the table below we can calculate the annual liability for lease and tax.

Year	1	2	3	4	5
Revenue	–	–	100	400	600
Profit	–	–	50	220	400
Capital expenditure	100	100	50	10	10
<b>Lease calculation</b>					
Unredeemed capex b/f	–	100	200	200	–
Total capex for redemption	100	200	250	210	10
Unredeemed cap. allowance b/f	–	2,75	11,67	25,75	29,58
Capital allowance on:					
Unredeemed capex b/f	–	6,0	12,0	12,0	–
Unredeemed C.A. b/f	–	0,17	0,7	1,55	1,77
Current capex	2,75	2,75	1,38	0,28	0,28
Total C.A. for redemption	2,75	11,67	25,75	39,58	31,63
Profit for x of lease formula	–	–	–	–	390
x %	–	–	–	–	65,00
y %	–	–	–	–	13,1538
Profit subject to lease	–	–	–	–	358,37
Lease payment	–	–	–	–	47,73
<b>Tax calculation</b>					
Unredeemed capex b/f	–	100	200	200	–
Total capex for redemption	100	200	250	210	10
Unredeemed cap. allowance b/f	–	4,58	19,62	43,87	58,72
Current capital allowance	4,58	15,04	24,25	24,85	–
Total C.A. for redemption	4,58	19,62	43,87	68,72	58,72
Profit subject to tax	–	–	–	–	283,55
x %	–	–	–	–	47,2583
y %	–	–	–	–	49,8431
Taxation	–	–	–	–	162,53
Profit after tax	–	–	50	220	189,74
Less: Capex	100	100	50	10	10
Available for distribution	(100)	(100)	–	210	179,74

We have now gone through the standard lease and tax calculations which apply to most mines. The main exception is mines that are classified as State assisted but before we examine that let's look at what happens in the case of small mines. The formulae again conform to the pattern of  $Y = a - \frac{ab}{x}$  where b is again equal to 6 for pre-August 1966 mines and 8 for post-August 1966 mines but the value of 'a' varies. If taxable income for the year does not exceed R40 000, 'a' has a value of 20, giving formulae of:

$$y = 20 - \frac{120}{x} \text{ for pre-August 1966 mines}$$

and

$$y = 20 - \frac{160}{x} \text{ for post-August 1966 mines}$$

When taxable income exceeds R40 000 the value of 'a' increases by 1 for every completed R2 500 by which the taxable income exceeds R40 000. The formula for post-August 1966 mines can be written as:

$$y = (20 + w) \left(1 - \frac{8}{x}\right).$$

Note: for pre-August 1966 mines replace the 8 by 6.

where  $w$  represents the number of completed multiples of R2 500 by which the taxable income exceeds R40 000.

It will be seen that when  $w = 40$ , i.e. taxable profit = R140 000 or more, then  $a = 60$  and the large mine formula applies.

Let us now pass on to the position of assisted mines. The Gold Mines Assistance Act was introduced in 1968 when, with a fixed gold price of \$35 an ounce, a number of old marginal mines were in danger of closing down and flooding neighbouring mines. To qualify for State assistance a mine must have a remaining life of 8 years or less with a significant increase in life resulting from State assistance. Assisted mines pay tax according to the formula:

$$y = 68 - \frac{601}{x} \text{ or the standard formula of}$$

$$y = 60 - \frac{360}{x} \text{ whichever results in the lower tax before}$$

addition of the surcharge to the standard formula. Note that no surcharge is payable when the State assistance formula applies but should the tax calculated using the standard formula excluding surcharge be less than that calculated using the assistance formula, the standard formula will apply, even though the addition of the surcharge may result in a higher total tax payment than would result if the assistance formula were used. Loan levies are applicable to both formulae. It is worth noting that when  $x = 30$  the two formulae give approximately the same tax rate (48%). This may not seem to have much to do with the mine receiving assistance but if you

substitute a value of 8,838 (we will see how that is divided later) for  $x$  in the assistance formula the resultant value of  $y$  is zero. As  $x$  falls below 8,838,  $y$  becomes negative and the calculated negative tax amount is paid tax free to the company as a tax credit. This tax credit is subject to a maximum of 25% of gross revenue from minerals for that year.

The only other aspect of assisted mines which requires comment is capital expenditure. Like all gold mines, assisted mines may redeem their capital expenditure in the year in which it is incurred. Any unredeemed balance on commencement of assistance is added to any accumulated assessed loss, but this loss does not enter into any tax credit calculation. However, it is allowed to reduce any current assessed taxable income to the level at which no taxation is payable. Conversely, if a taxable profit is made and the assistance formula results in a tax credit, such taxable profit is used to reduce the accumulated assessed loss. The redemption of current capital expenditure in any year is limited to that amount that increases the tax credit payable to the maximum of 25% of revenue from the sale of minerals, and the balance is carried forward to the next year and treated as current capital expenditure in that year.

In addition the Government Mining Engineer may not allow all capital expenditure to be included in the State assistance calculation. In general, capital expenditure necessary to maintain the existing operation will be allowed but expenditure on expansion programmes and major replacement of facilities may not be allowed.

That completes the coverage of the calculation of lease and taxation payments by gold mines. In Part 3 we will look at some shortcuts and examine the implications of the formula method of taxation.