TABLED DOCUMENT NO. 1 0 1 - 1 2 (7) TABLED ON APR 2 7 1995

MINERAL ROYALTIES

PURPOSE

Comparison of the NWT mineral royalty regime with other Canadian and international jurisdictions.

SUMMARY

1) The NWT has a progressive profit- or income-based royalty system. As the profitability of the mine operation increases, the royalty rate increases. This improves the chances of marginal mines to operate, while ensuring that high-profit operations contribute more revenue. Most jurisdictions in Canada have progressive royalty systems. Most overseas jurisdictions do not.

2) The NWT has low profit- or income-based royalty rates relative to other jurisdictions in Canada and around the world.

3) Each of the studies summarized in the attached tables have used different mine models (size of mine, type of mine, profitability) and so have varying percentages as the actual royalty rate for each jurisdiction. However, the position of the NWT relative to the other jurisdictions is similar in all of the studies.

BACKGROUND

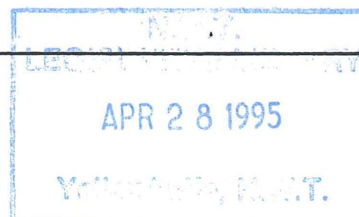
There are three main fiscal features that define the environment for mining investment and operations within a jurisdiction:

1) Profit- or income-based taxes, including **royalties**, corporate taxes, and income taxes;

2) Nonprofit-based taxes, such as custom duties, excise taxes, fuel taxes, sales taxes, payroll taxes, licenses, fees and permits; and

3) Incentives, including fiscal incentives (tax credits, grants and loan guarantees) and non-fiscal incentives (geological data and infrastructure).

In the NWT licenses, fees and permits associated with mineral exploration and mining operations are relatively low. The amount of geological data and infrastructure available in the NWT is also relatively low.

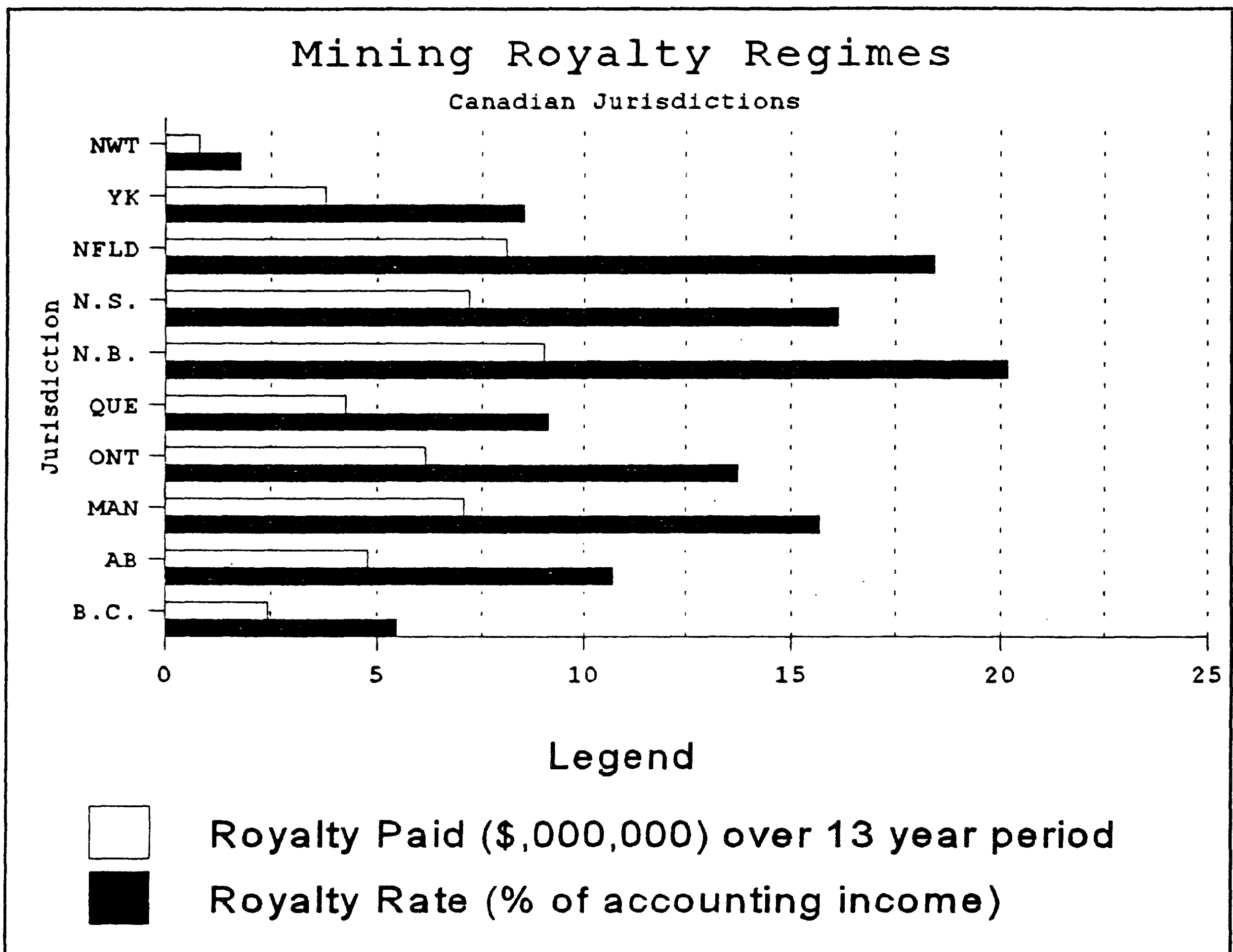


It should be noted that the GNWT does not presently receive any royalties, licence fees or other resource revenues from the mining industry.

ROYALTY REGIMES IN CANADA

The following data is taken from the Price Waterhouse study of Canadian Mining Taxation, 1994. In the study, the total tax burden for a hypothetical mining operation was calculated for a 13 year period for each jurisdiction in Canada (except Saskatchewan and P.E.I.). The following chart indicates the effective mining royalty (also termed mining tax) rates and the amount of royalty collected from the hypothetical mine over the 13 year time frame, for each jurisdiction. A summary of the hypothetical mine operation and of the total tax burden is attached.

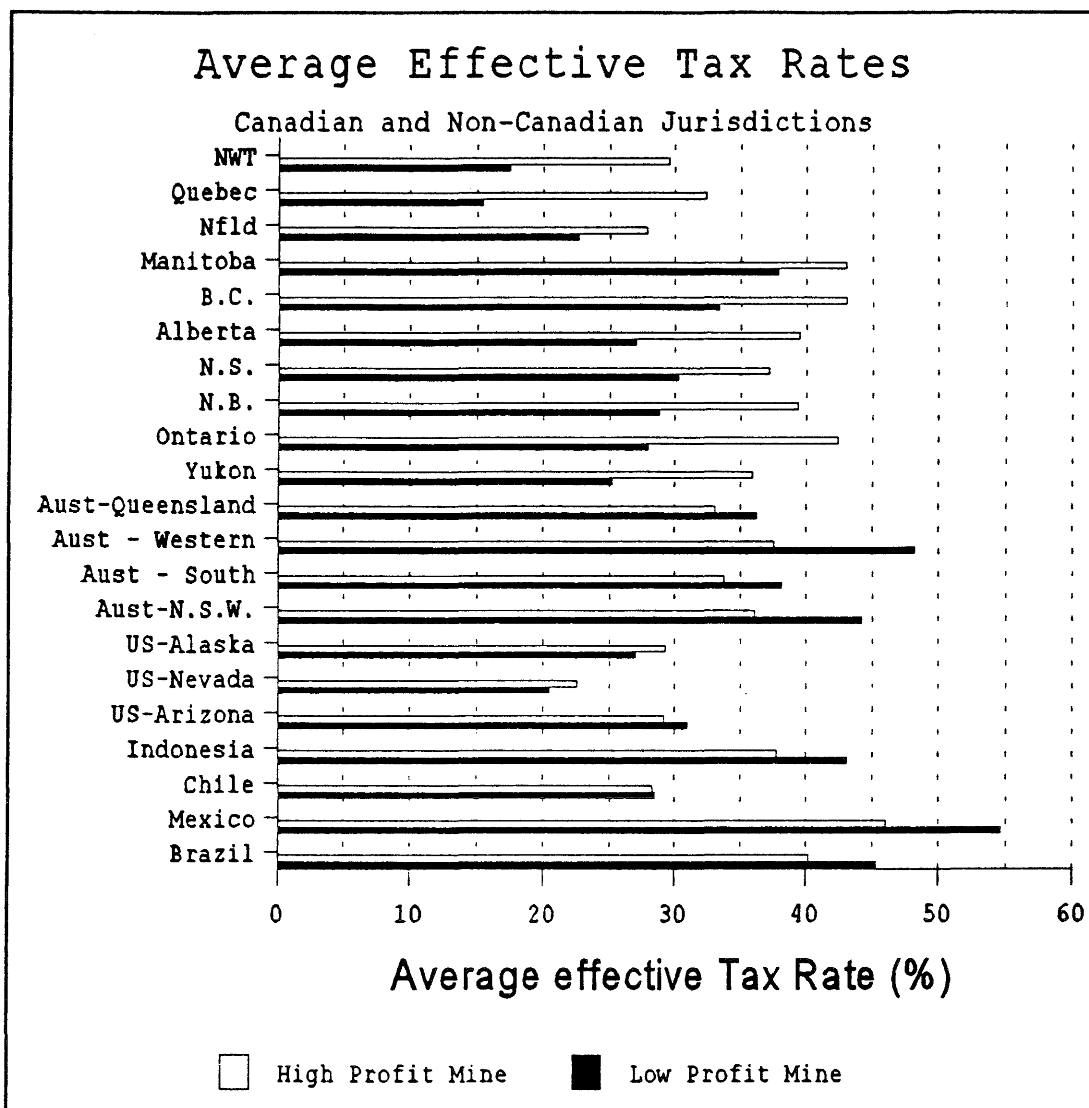
HYPOTHETICAL MINE



EFFECTIVE TAX RATE COMPARISONS

The following table compares effective tax rates (which includes income taxes and royalties) for various Canadian and non-Canadian jurisdictions. Two tax rates are presented for each jurisdiction, one based on a low-profitability mine model and the other based on a high profitability mine model. The data comes from the Intergovernmental Working Group on the Mineral Industry study on Mineral Taxation Concerns, 1993 (Tables 5.1 and 5.2).

This study includes income taxes with royalty rates in the calculation of effective tax rates. The NWT is the second lowest (only Quebec is lower) of all jurisdictions studied for the low profitability mine model. However for the high profitability mine model, the NWT does not have as low tax rates as Nevada, Alaska or Arizona in the US, or as Chile or Newfoundland.



ROYALTY REGIMES IN NON-CANADIAN JURISDICTIONS

There are numerous options and methods of applying, calculating and collecting mineral taxes and/or royalties. In many non-Canadian jurisdictions there is no equivalent to a "royalty", however either higher or additional corporate tax rates and other profit or income based taxes are present. Attached is a listing of the details of the taxation regimes in Canadian and some non-Canadian jurisdictions from the study on Mineral Taxation Concerns by the Intergovernmental Working Group on the Mineral Industry (IGWG) in 1993.

Table 2.1 (page 2) shows the variability across Canada of the mineral tax regimes. Table 2.2 (page 6) lists the applicable income tax provisions for non-Canadian jurisdictions. These tables show the variety of options and methods of applying and calculating mineral taxes, demonstrating some of the difficulties in drawing comparisons between jurisdictions.

Illustrative Calculation of Tax Burden on Hypothetical Canadian Mining Operation

Appendices B to K illustrate the calculation of the total federal and provincial income and mining tax burden on a hypothetical Canadian mining operation over a thirteen year period, encompassing three years of preproduction development and ten years of production.

These calculations are based on the assumptions which are set out below. Unless otherwise indicated, all amounts are thousands of dollars.

The assumptions upon which the relevant computer models are based include the following:

1. | | |
   |---|---|
   | Reserves | 3,000,000 tons |
   | Milling rate | 290,000 tons/year (800 tons/day) |
   | Grade | .16 oz. au/ton |
   | Production | 46,000 oz. au/year |
   | Operating costs | $38/ton milled |

2. The capital costs that are incurred prior to the commencement of commercial production are as follows:

	Year 1	Year 2	Year 3
Purchase of mineral rights	1,000		
Exploration expense	6,000		
Development expense	-	10,000	10,000
Cost of buildings, machinery, and equipment			
Mining assets		10,000	8,000
Mill		4,500	5,000

   No additional fixed assets are acquired following the commencement of production.

3. The interest rate throughout the period is 10%.
4. The mine is financed in a 50:50 debt/equity ratio.
5. $1,000 is spent each year on off – site exploration.
6. Federal and provincial capital taxes are ignored.

Comparative Summary by Province of Tax Burden on Hypothetical Canadian Mining Operation

	Total taxes ($000s)	% of accounting income
British Columbia –		
Federal income tax	6,082	13.62
B.C. income tax	7,370	16.50
B.C. mining tax	2,440	5.46
		35.58
Alberta –		
Federal income tax	6,104	13.65
Alberta income tax	3,280	7.33
Alberta mining tax	4,789	10.71
		31.69
Manitoba –		
Federal income tax	6,143	13.69
Manitoba income tax	3,621	8.07
Manitoba mining tax	7,042	15.70
		37.46
Ontario –		
Federal income tax	6,064	13.60
Ontario income tax	2,837	6.36
Ontario mining tax	6,134	13.76
		33.72
Quebec –		
Federal income tax	6,699	14.32
Quebec income tax	2,066	4.42
Quebec mining tax	4,274	9.13
		27.87
New Brunswick –		
Federal income tax	3,949	8.83
New Brunswick income tax	3,949	8.83
New Brunswick mining tax	9,023	20.17
		37.83
Nova Scotia –		
Federal income tax	3,877	8.72
N.S. income tax	3,677	8.27
N.S. mining tax	7,173	16.13
		33.12
Newfoundland –		
Federal income tax	3,741	8.50
Newfoundland income tax	3,601	8.18
Newfoundland mining tax	8,112	18.44
		35.12
Yukon –		
Federal income tax	6,052	13.58
Yukon income tax	3,148	7.07
Yukon mining tax	3,804	8.54
		29.19
Northwest Territories –		
Federal income tax	6,064	13.60
Northwest income tax	2,523	5.66
Northwest mining tax	802	1.80
		21.06

Source: (1)

Chapter 2

COMPARATIVE TAX TABLES BY JURISDICTION

Table 2.1 International income tax provisions (1993) October 7, 1993

Country	Features						
	Income Tax Rate	Treatment of Mineral Claim Cash Costs	Treatment of Exploration Expenditures	Treatment of Preproduction Development Expenditures	Treatment of Depreciable Asset Cost	Special Allowances	Loss Carry-Overs
Australia (Federal)	33% of taxable income in 1993-94 and thereafter.	Not deductible unless the buyer and seller enter an agreement by which they concur to the transfer of available deductions.	Deducted when incurred or can be carried forward indefinitely, if insufficient income.	Deductible over 10 years or mine's life, whichever is less, calculated on a straight-line basis.	Straight-line or declining balance basis (normally 30% declining balance for most mining & mineral processing equipment).	Development allowance of 10% of depreciable asset cost. Allowable R&D deduction of 150%.	Losses incurred after the 1989-90 fiscal year can be carried forward indefinitely.
Brazil	25% of taxable income, plus 10% on profits over US$150 000 and 8% withholding tax on all after-tax profits.	May be deducted in a proportion of yearly ore extracted on total ore reserves.	Deducted as incurred or capitalized and amortized over at least 5 years (annual monetary correction) on straight-line basis, beginning in the month in which the mine starts operating.	Same as exploration.	Normal rate is 20% straight-line for machinery (rates vary for one, two or three shift operations).	None.	Can be set off against taxable income as long as needed (annual monetary correction).
Canada (Federal)	28.84% of taxable income (including surtax).	May deduct 30% per year of unclaimed balance of the costs of mineral properties, leases and concessions.	Deducted to the extent of income from any source. Balance is carried forward indefinitely.	May deduct to the extent of income. Unclaimed balance may be carried forward indefinitely.	May deduct up to a maximum of 25%, declining balance, for mining and processing assets (may qualify for accelerated depreciation rate, up to 100%).	Resource allowance of 25% of certain resources profits. Investment tax credit of 15% to 45% of the cost of qualifying assets.	Non-capital losses can be carried forward 7 years and back 3 years. Net capital losses 3 years back and forward indefinitely.

Source (IV)

Table 2.1 **International income tax provisions** (Continued)

Country	Features						
	Income Tax Rate	**Treatment of Mineral Claim Cash Costs**	**Treatment of Exploration Expenditures**	**Treatment of Preproduction Development Expenditures**	**Treatment of Depreciable Asset Cost**	**Special Allowances**	**Loss Carry-Overs**
Canada (British Columbia)	16.5% of taxable income (rate reduced when deductible levies exceed resource allowance).	Not deductible.	Same as Canada (Federal).	Same as Canada (Federal).	Same as Canada (Federal).	Same as Canada (Federal), except there is no resource allowance.	None.
Canada (other provinces and territories)	Rates vary for each provinces and territories.	Not deductible.	Same as Canada (Federal).	Same as Canada (Federal).	Same as Canada (Federal).	Same as Canada (Federal).	None (except for Quebec).
Chile	15% first category tax, credited against 35% additional tax.	May be deducted in a proportion of yearly ore extracted on total ore reserves.	May be written off in 1 to 6 years on straight-line basis.	Amortizable over the useful life of the mine or, if so requested, over the useful life of the assets.	Straight-line basis, 10 years for heavy machinery in mines & mineral processing plants (optional accelerated depreciation over 3 years for assets referred to above).	R&D expenses can be deducted in the year incurred or in up to 6 consecutive years.	First category losses and Additional tax losses can be carried forward indefinitely. No loss carry back.
Indonesia	35% of taxable income (top rate).	All pre-production costs are amortized at 25% per year using the declining balance method at the beginning of commercial production.	Same as mineral claim cash costs.	Same as mineral claim cash costs.	Depreciation is mandatory and from the time of purchase. Rate for most movable equipment and machinery for 5th generation COW is 25% declining balance (group 2); for buildings, 12.5% straight-line (group 3 & 4).	None.	Can be carried forward for 8 years. There is no carry back of losses.

Table 2.1 International income tax provisions (Continued)

Country	Features						
	Income Tax Rate	Treatment of M'neral Claim Cash Costs	Treatment of Exploration Expenditures	Treatment of Preproduction Development Expenditures	Treatment of Depreciable Asset Cost	Special Allowances	Loss Carry-Overs
Mexico	35% general rate and 10% Mandatory Profit Sharing.	Deducted as incurred or amortizable at 10% rate on a straight-line basis.	Same as treatment of mineral claim cash costs.	Same as treatment of mineral claim cash costs.	Depreciation on a straight-line basis, normally at 10%; fully adjusted for inflation.	None.	Operating losses can be carried forward for up to 5 years. There is no carry back of losses.
Papua New Guinea	35% of taxable income (resident) or 48% (non-resident), plus a 45% Additional Profits Tax applied after the end of the investment recovery period on the basis of cash flow.	Not available.	Deduction in the year of income; determined by dividing the residual expenditure by 5 or the estimated life of the mine (lesser period).	Deduction determined by dividing the undeducted balance by the lesser of 10 or the estimated life of the mine.	If assets not included in E&D: reducing balance, straight-line optional (20% reducing balance or 30% straight-line for heavy equipment).	Rapid investment recovery; accelerated deductions after commencement of commercial production; R&D.	Losses may be carried forward for up to 7 years. No loss carry back.
Peru	30% of taxable income.	Can be amortized from the period when a production minimum becomes compulsory (spread on the deposit's life).	Can be fully deducted or amortized by an annual rate based on the deposit's life (from when the production minimum becomes compulsory).	Fully deducted as incurred or amortized up to 3 fiscal periods.	Straight-line. 20% for mining equipment and other investments above US$20 million. If not taken in due time, cannot be deducted in subsequent periods.	None.	May be carried forward for four consecutive years (longer if approval from tax authorities).
Philippines	35% of taxable income plus 15% Branch Profit Tax (remitted abroad).	Cost depletion (proportion of yearly minerals sold on total mineral reserves).	May choose between expensing and cost depletion allowance (irrevocable choice).	Same as exploration.	Straight-line, on the estimated useful life.	Income tax holidays of 6 years for pioneer projects, and 4 years for others. Many restrictions apply.	No operating loss carry over or carry back are allowed.

'able 2.1 International income tax provisions (Continued)

Country	Features						
	Income Tax Rate	Treatment of Mineral Claim Cash Costs	Treatment of Exploration Expenditures	Treatment of Preproduction Development Expenditures	Treatment of Depreciable Asset Cost	Special Allowances	Loss Carry-Overs
South Africa	Other than gold mining: 1991-92: 50.88% 1992-93: 49.44% 1993-94: 40% of taxable income. Add 15% of withholding tax on foreigners.	No allowance for expenditure on mineral rights.	Fully deductible from mining income. If mining income is insufficient to absorb the deduction, excess will be available to be offset against any other mining income.	Allowed in the year incurred. Generally deductible against the mining income of the property that the expenses were incurred upon, although some exemptions do exist.	Usually calculated according to the declining balance method (10, 17.5 or 25% for machinery, depending on number of shifts). May be calculated according to the straight-line method with the consent of the Commissioner.	Capital allowance of 10% for post-1973 gold mines and 12% for post-1990 gold mines. Capital expenses for R&D are deductible over 4 years, 25% per year.	Carry forward indefinitely; carry back not available; business must be continuous.
U.S. *(Federal)*	34% of taxable income (may be increased to 36% by Clinton proposals).	Capitalized as part of the cost of the properties acquired.	May be either deducted as current expenses or capitalized and amortized in relation to production (subject to recapture).	Fully deductible or may be capitalized and amortized in relation to production (*not* subject to recapture).	Cost of property depreciated over 3 to 20 years, depending on the type and duration of usefulness.	Depletion allowance rates vary for each commodity. Most are either 14, 15 or 22% of gross mineral income.	Unused losses and tax credits may be carried back 3 years and forward 15 years.
Zimbabwe	45% of taxable income plus 8.4% Branch Profit Tax for nonresident.	Not deductible.	May be deducted as incurred or carried forward until income is realized.	Can be deducted in the year production commences. Subsequently, deducted in the year incurred or claimed over the mine's estimated life.	Capital expenses (machinery and equipment, buildings, etc.) can be deducted in the year production commences. Subsequently, deducted in the year incurred or claimed over the mine's estimated life.	Depletion allowance of 5% of the amount accrued from the sales of minerals produced by the taxpayer. Investment allowance of 50% on training buildings.	May be carried forward indefinitely. No loss carry back.

Table 2.2 Mining taxation provisions for Canadian jurisdictions (1993) **October 7, 1993**

	Features						
	Mining Tax rate	Treatment of Mineral Claim Cash Costs	Treatment of Exploration Expenditures	Treatment of Preproduction Development Expenditures	Treatment of Depreciable Asset Cost	Special Allowances	Loss Carry-Overs
Canada (Alberta)	1% of mine mouth revenue until total allowable capital and start-up costs recovered, 12% afterward (min. of 1% of mine mouth revenue).	Not deductible.	Effectively 100% deduction.	Same as exploration.	15% straight-line.	Processing allowance of 10% of the original cost of post mine mouth assets (max. 65% of gross revenue for the period).	None.
Canada (British Columbia)	2 stages: 2% tax on net current proceeds and 13% tax on cumulative net revenue. 2% tax creditable against Stage 2 tax.	Not deductible.	100% deduction.	Same as exploration.	Effectively 100% deduction.	Investment allowance (interest factor to estimate the cost of capital for the industry) plus additional credit of 13% of the Cumulative Reclamation Cost Account's balance for the year.	None.
Canada (Manitoba)	20% on taxable profit. As of 1993, new mines don't pay mining tax until profits equal the capital outlays in opening the new mine.	Not deductible.	Can be deducted in full in the year incurred. If not, may be deducted in later years.	Included in depreciable assets.	May deduct up to 20%, declining balance of the undepreciated capital cost of depreciable assets (no minimum). Accelerated depreciation up to 60% may be allowed.	Processing allowance of up to 10% of the cost of processing assets (subject to approval). Maximum allowance of 65% of profits.	None.

Table 2.2 Mining taxation provisions for Canadian jurisdictions (Continued)

	Features						
	Mining Tax rate	Treatment of Mineral Claim Cash Costs	Treatment of Exploration Expenditures	Treatment of Preproduction Development Expenditures	Treatment of Depreciable Asset Cost	Special Allowances	Loss Carry-Overs
Canada (New Brunswick)	2% royalty on annual net revenue derived from the mine plus 16% levy on net profit in excess of $100 000.	Not deductible.	Exploration expenditure allowance of 150% of the eligible expenditure.	5% minimum (no maximum).	Minimum of 5% to 100% of the cost of depreciable assets for new or expended mine or processing plant. Other assets subject to a maximum 33 1/3%.	Processing allowance of 8% of the cost of milling or concentrating assets plus 15% of the cost of refining and smelting assets (min. of 15% and max. of 65% of net profits). Tax credit of 25% of eligible process research expenses.	None.
Canada (Newfoundland)	16% of taxable mining income (effective rate).	Not deductible.	Added to depreciable costs.	Deductible over the life of the mine as estimated by the Minister.	May deduct up to a maximum of 10%, straight line.	Processing allowance of 8% of the cost of processing assets (maximum of 65% of income). Deduction of the greater of royalties paid or 20% of net income.	None.

Table 2.2 Mining taxation provisions for Canadian jurisdictions (Continued)

	Features						
	Mining Tax rate	Treatment of Mineral Claim Cash Costs	Treatment of Exploration Expenditures	Treatment of Preproduction Development Expenditures	Treatment of Depreciable Asset Cost	Special Allowances	Loss Carry-Overs
Canada (Nova Scotia)	2 systems at the discretion of the Minister: royalty at a fixed percentage of net value received for specific minerals; or royalty at the greater of 2% of net smelter return or 15% of net income from the mine.	Not deductible.	100% deduction.	Added to depreciable asset cost.	May deduct up to a maximum of 100% of depreciable costs per annum for the first 3 years and 30% straight-line after. Added to depreciable cost.	Processing allowance of 8% of processing assets (maximum of 65% of net income).	None.
Canada (Ontario)	20% on mining income (exempt in first 3 years of a qualifying new mine).	Not deductible.	100% deduction in the year incurred for expenses incurred in Ontario. Unclaimed expenditures may be carried forward indefinitely.	Same as exploration.	30% straight-line (up to 100% of new mine income for new mine assets). No minimum depreciation except during the 3 years exempt period where a minimum of 30% must be taken. 15% straight line for processing and transportation assets.	Resource allowance phased-in (20% Dec. 31, 1992 and 25% Dec. 31, 1993 and on). Processing allowance of 8% up to 20% if applies.	None.

Table 2.2 Mining taxation provisions for Canadian jurisdictions (Continued)

	Features						
	Mining Tax rate	Treatment of Mineral Claim Cash Costs	Treatment of Exploration Expenditures	Treatment of Preproduction Development Expenditures	Treatment of Depreciable Asset Cost	Special Allowances	Loss Carry-Overs
Canada (Quebec)	18% on mining income from Quebec (with $90 000 tax credit).	Not deductible.	Deductible when incurred to the extent of mining income. Unclaimed expenses can be carried forward indefinitely in the form of a development allowance.	Same as exploration.	May deduct up to a maximum of 30%, straight-line, on all mining, processing and transportation assets.	Refundable credit on mining duties (at the mine operator's choice); Investment allowance of 1/3 of the cost of new processing assets and E&D expenses limited to 1/3 of mining profits. Processing allowance of 8% (concentrating assets) or 15% (smelting and refining assets).	Can be carried back 3 years and forward 7 years.
Canada (Sas-katchewan)	5% of gross sales plus graduated royalty on profit (to 50% of operating profits) for uranium.	Not deductible.				Tax credit of 35% of exploration expenses against graduated royalties only.	None.
Canada (Northwest Territories)	Royalty of 3% of the annual value of output, up to 12% (if exceeds $35M).	Not deductible.	If not claimed in the year incurred, deduction of the lesser of exploration cost and 10% of total value of the output of the mine.	100% deduction.	15% straight line.	Preproduction allowance (same rules as depreciable asset cost). Processing allowance if ore treated in NWT equal to the lesser of 8% of cost of processing or 65% of value of output.	None.

Table 2.2 Mining taxation provisions for Canadian jurisdictions (Continued)

	Features						
	Mining Tax rate	Treatment of Mineral Claim Cash Costs	Treatment of Exploration Expenditures	Treatment of Preproduction Development Expenditures	Treatment of Depreciable Asset Cost	Special Allowances	Loss Carry-Overs
Canada (Yukon Territory)	Royalty of 2 1/2% of the value of gold. Other are taxed at 3% up to 6% of annual profit; additional increase of 1% for each $5M in excess of $10M.	Not deductible.	Ministerial discretion applies up to 100% deduction.		May deduct up to a maximum of 15% per annum of the value of depreciable assets.	Processing allowance also deductible at the discretion of the Minister.	None.