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Taxation of the Mining Industry in Canada

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INTRODUCTION

1. The mining industry embraces many activities, ranging from the speculative investigation of unmapped areas to the smelting and refining of metals. The operations of an integrated mining company may be regarded as a continuous conversion of the earth's surface into mineral products and all the activities of exploration, development and production as one effort directed to this end. In order to discuss the problems of determining income for such a wide range of activities, some classification must be attempted. The classification adopted here is between prospecting, property examination, development and production as various stages in the mining process.

PROSPECTING

INTRODUCTION

2. The first stage in the mining process is prospecting. It may be defined as the reconnaissance of an area to ascertain whether evidence of mineralization exists. This activity was at one time carried on almost exclusively by individuals searching the surface for visible signs of metal content, usually following the discovery of metal float in streams, or stained areas of land (gossans), or sometimes, as in the course of railway construction, of ore itself. Over the last hundred years virtually the whole surface of Canada has been looked at and many people in the mining industry believe that there are few, if any, further deposits to be found by surface examination alone. As new surface showings diminish in number,

the techniques of prospecting have become more sophisticated and much more expensive. Geophysical and geochemical methods have largely replaced more traditional methods; much initial reconnaissance is done by airborne survey; detailed geological mapping is becoming increasingly important. The amounts spent in scientific prospecting are now substantial, and as a result, independent individual prospectors appear to be a diminishing influence in the discovery of new deposits.

3. Persons undertaking prospecting work do so with differing objectives and these range from the immediate to the very long term. An individual prospector seeks merely to discover sufficient evidence of mineralization to encourage an exploration or mining company to purchase his claims; the exploration company seeks to acquire and explore claims to the point where they may be sold to a mining company for further development; the integrated mining company regards prospecting as a continuing activity, one essential to the process of metal production because it provides new sources of raw material.

4. Most prospecting expenses are now incurred by the larger companies, and many of these are undoubtedly the integrated companies. A recent study 1/ has indicated that in the year 1960, 50 per cent of Canadian prospecting expenses were incurred by 13 companies having expenditures of over $500,000 in the year and a further 34 per cent by a further 70 companies having expenditures of between $100,000 and $500,000. Exploration companies are also important in prospecting ventures. While the independent individual prospector is relatively less important than he used to be, some exploration and mining companies still rely on him heavily to make the initial discoveries and his value should not be too greatly discounted.

Independent prospectors are sometimes financed by other individuals (known as grubstakers) but this type of financing does not presently appear to be a significant factor in exploration activity.

5. No meaningful budget or profit and loss account can be drawn up for exploration work. The discovery of a promising area may, where funds are available, result in large expenditures on further investigation even though the original discovery did not show ore of a commercial grade. Prospecting in general appears to be carried on because it has historically proven to be a profitable enterprise in the long run 2/ and, in the case of the integrated companies, because it forms part of a general policy of preserving the utility of existing assets and marketing organizations. However, the overall expectations of profit from prospecting are naturally not borne out in every case and the great majority of prospecting ventures result in no discovery of commercial value. It has been estimated, for example, that out of 419,711 claims staked in Ontario between 1907 and 1953 only 348 producing mines were developed, and from 36,202 mining licences issued in Quebec from 1907 to 1942 only 87 producing mines resulted 3/

ACCOUNTING

6. Against this background, it is not surprising that conservative accounting theory should suggest that prospecting costs be written off as incurred. However, two points of view exist:

> "The search for mines is a hazardous undertaking and the outcome of a venture may not be determined until after expenditure of important amounts. Mines have been found in ground that has previously been abandoned and for this reason the accountant should hesitate to write off mining properties until they are actually abandoned by the company, even when he holds grave doubts regarding their value." 4/

> "The cost of unsuccessful prospecting is merely an expense as such in the profit and loss statement. In fact, when an interesting property

is acquired through prospecting the actual costs of the venture are seldom capitalized on the rather sound theory that the holding is very nebulous in value and will probably remain more or less idle for a considerable period before any further exploration or significant development is attempted." 5/

7. In any attempt to investigate the proper determination of income for a mining enterprise there must be some reconciliation of these apparently conflicting views. The first view is generally not reflected by accounting practice in Canada 6/ but it has the authority of being the basis for taxation under the United States Code, although provision is made there for the immediate deduction of a limited amount of prospecting costs. It has also, until recently, been used as the basis for taxation in South Africa but prospecting expenses are now immediately deductible in that country. The second view reflects the practice actually adopted in Canada. Of eleven companies engaged in prospecting and answering the questionnaire, nine stated that prospecting costs were generally written off as incurred; one stated that they were deferred only when strong evidence of mineralization was found; and one deferred all costs until properties were actually abandoned.

8. In considering these two views, the first point to note is that the authors are probably writing from somewhat different experience and different points of view. Mr. Elliott has for many years been associated with Conwest Exploration Company Limited, a corporation specializing in property examination and exploration work. As a practising chartered accountant, Mr. Kilner would no doubt have been thinking of the position of integrated mining companies as well as exploration companies. It is reasonable to suppose that Mr. Elliott had in mind situations typical of his own company, where the

objectives are relatively short term, and did not particularly have regard to the integrated mining companies with their long-term objectives of inventory replacement.

9. There is also probably a fundamental difference of view about the theory of deferring costs. This is one of those accounting areas where there has been virtually a free option to choose one of two contradictory courses. Costs can be carried forward until resulting values are known and then be amortized against the revenue arising or they can be written off unless resulting values can immediately be demonstrated.

10. This question of deferring costs is of course at the heart of accounting theory and statements about it have been made in every text on accounting. One viewpoint is the "net worth" approach by which "business income as computed by the accountant is the difference between the net worth of the business at the beginning and at the end of the period for which the income is being calculated". 7/ This implies that only those costs having a "worth" at the end of the period can be deferred. Worth in the financial sense must be related to the probability of producing future income, so that under this theory costs should presumably be written off unless there is a reasonable chance that they will subsequently produce revenue.

11. If one looks at the income directly rather than trying to derive it from statements about assets, one is immediately faced with the axiom that costs must be matched with revenue. If they cannot be matched with future income they should be written off. What then, is meant by "matching"? Matching implies a correspondence of costs incurred in one period with revenues earned in another and refers to the accounting techniques of

relating those costs and revenues to determine a net profit. It seems fair to state that a cost incurred in one period can be "matched" with revenue earned in another period if the cost was incurred in the expectation of earning the revenue and if at the end of the period in which the cost was incurred there existed some reasonable expectation that revenue would subsequently be earned.

12. Indeed, it seems that the expectation of earning subsequent revenue is probably the key factor in deciding, at the end of any accounting period, whether or not to write off costs incurred during the period. Since the criterion of "revenue expectation" is highly subjective, it is not surprising that diametrically opposite practices should have developed in similar circumstances. To return to the comparison of Messrs. Elliott and Kilner, it can be seen that the relatively short-term objectives of an exploration company warrant a fair degree of revenue expectation because a probable completion date can be set for a particular programme of exploration, whereas the long-term objectives of an integrated company do not connote the same degree of revenue expectation because the programme of searching for raw materials is endless.

13. There are analogous situations in other businesses. One reasonable analogy appears to be the costs of an advertising programme. Here the causal connection between costs and revenue is tentative and the results often uncertain; the revenue expectation is low. Montgomery states that "the determination of that portion of advertising cost that may be treated as a cost of developing trade marks and trade names and consequently a capital expenditure is usually so difficult that all such items should be treated as current expenses. Some companies have capitalized their

advertising expenditures only to find upon the cessation or reduction of their advertising that the drawing power of a trade mark or trade name has to be constantly nourished. What they had been capitalizing was in fact maintenance". 8/ This last remark rings true of the prospecting costs of the integrated mining company continually seeking to replenish its reserves. Another helpful analogy is the cost of an experimental programme. Montgomery deals at length with this and since his comments are germane to the present question, they are quoted in full:

> "Experimental, research, and development work is undertaken with the expectation that future benefits will result, and, if results were always as originally planned, there would be no question that the total costs should be spread over the periods benefited. The only problem is to estimate at the outset the period of amortization. In practice much experimental and development work fails to produce the results anticipated; when it becomes apparent that this work is unsuccessful, the cost should be charged off to expense at once.
>
> "Because of the uncertainty of the duration of benefits, and, in many cases, because of the uncertainty that benefits will be realized, the accounting treatment of experimental and development expenditures is optional. They may be capitalized during the progress of the work and the accumulated balance amortized over a definite even thought arbitrary period, over a definite output of product, or written off immediately.
>
> "When experimental and development expenditures are characteristic of the business, the practical treatment is to charge them to expense currently. Chemical companies, for example, find continuous experimental work necessary to develop new products and to improve processes for manufacturing existing products. The most practical treatment is to charge these expenditures to expense currently, for it is usually difficult to determine in advance the benefit that may result therefrom in future periods.
>
> "In some industries, experimental and development expenditures may be infrequent and, when incurred, they are often related to a definite project. While such costs may well be charged to expense currently, it is not improper to accumulate them as deferred charges until the results of the work are determined. If the objectives are attained, the deferred charges may be amortized over an arbitrary, but usually relatively short, period. Such deferred charges should be written off rapidly and once the period has been fixed, charges should be made on a systematic basis. If the work is not successful, the unamortized balance should be charged off at once."

14. It will be noted from these comments that because of the uncertainty of results (the low revenue expectation), such costs are usually written off as incurred but that situations, where they are incurred with a limited and definite objective, can be distinguished from those where they are incurred as part of the continuing course of a business. The pattern which was observed for the treatment of exploration expenses appears to be repeated here.

15. A final analogy, and one which seems most appropriate for the integrated mining company, is a programme of pure research. Such a programme is carried out with the vaguest of objectives, but in the belief that knowledge in itself is an asset of value which will some day be turned to account. It is doubtful whether the costs of a programme of pure research are ever deferred.

16. Although experimental costs are analogous to propecting costs, it has to be admitted that the chances of success from an exploration programme, unless it is carried on for a very long period, are considerably less than those from an experimental programme. The uncertainty of prospecting can be judged from the fact that the chances of developing a mine from a "successful" prospecting venture (i.e. one which warrants intensive examination of the property) are still extremely low. One major exploration company rates the chances at 3 per cent. Pure research possibly has an equivalent degree of revenue expectation. Like prospecting of the integrated company, it is conducted on the assumption that profits will ultimately result, but there is no demonstrable connection with future revenues. The treatment of experimental costs is no doubt said to be optional, because in many cases they are incurred in the reasonable expectation of achieving a stated

objective but it is doubtful if the option to defer would be appropriate for a programme of pure research.

17. This discussion can be summarized by stating some tentative conclusions:

(a) Deferment of costs appears to be preferable when the objectives of a venture are relatively limited and short-term because in such a venture there is a more obvious connection between the incurring of expenses and the results they produce; it is thus often appropriate for an exploration company to defer prospecting costs.

(b) Expensing of costs appears to be preferable in long-term programmes where there is no reasonable expectation of any particular cost resulting in future revenue (the idea of "matching" then ceasing to be valid); it is thus appropriate for an integrated company which is continually seeking new sources of supply to expense prospecting costs.

(c) The distinction between rather definite short-term and rather vague long-term objectives appears to be recognized in other business situations as an important factor in deciding whether to defer or to expense costs.

(d) The exploration programme of an integrated mining company can also be likened, in part at least, to the maintenance programme of a manufacturing company, exploration being necessary to preserve the utility of existing plant and goodwill; this is a further factor suggesting that it is appropriate for an integrated company to write off prospecting costs as they are incurred.

(e) Accounting practice allows a complete freedom to defer or to expense prospecting costs; the majority of integrated mining companies in fact expense them.

It can be seen that these conclusions are not strong enough to support any statement to the effect that one particular method of accounting for prospecting costs is right and another wrong.

18. This discussion can be taken a stage further by considering, with particular reference to the mining industry, the nature of the revenue earned by those (prospectors and exploration companies) whose objectives were described as being relatively short term and for whom deferment of costs appeared preferable. The independent individual prospector seldom receives more than a small amount of cash on the disposition of his claims to an exploration or mining company. By far the greater part of the consideration which he receives is in the form of an interest in the proceeds from production, if any, or of shares in a corporation formed to develop the claims. The value of such interest or shares is subject to all the uncertainties of the exploration and development process and, although the prospector is the world's greatest optimist, his chances of actually deriving revenue from this interest are infinitesimal. Even the well-staffed, well-equipped and highly trained exploration division of a major mining company does not expect a better than 1 in 600 chance on first investigation. Thus, although his own objectives are limited, the nature of the arrangements he customarily enters into for disposing of his discoveries makes the independent prospector an integral part of the whole mining process.

19. Although the exploration company will take the development of a mining

property much further than an independent prospector, its position is similar to that of the prospector. The exploration company will continue to work on a property to the point where a decision can be made to abandon it or develop it as a mine. If the property warrants development as a mine, the exploration company will usually seek out a major mining company to finance the further work and the property is usually transferred to a new corporation which issues a substantial number of its shares to the exploration company as consideration. While the degree of revenue expectation throughout these transactions is higher than for the independent prospector, it is still not great, as will be explained below in the section on property examination. To a large degree the revenue of an exploration company is identified with the ultimate profitability, in the hands of a successor company, of the properties which it has explored.

20. Thus, in the particular circumstances of the mining industry, the distinction between short-term and long-term objectives tends to disappear when the nature of the consideration usually given for mining properties is taken into account. Each person in the chain of title looks to the ultimate purchaser to produce the profits. This is reflected by the universal accounting practice of recording shares received for mining properties at a nominal value or at an amount equal to the costs incurred on the properties prior to sale but seldom if ever at a value which yields a profit on the sale.

21. It is therefore reasonable to conclude that, if one consistent method of dealing with prospecting costs were to be prescribed for the accounts of all persons undertaking prospecting, the identity of all elements in the mining industry with the ultimate producers (largely the integrated

companies) would suggest that immediate writing off of such costs would be the appropriate method.

22. While these comments also suggest how revenue from the disposition of mining properties should be dealt with, this subject is sufficiently complex to warrant a separate discussion which follows later.

TAXATION

Criteria for an Appropriate System and General Recommendation

23. The discussion of accounting theory and practice has attempted to relate prospecting expenses to similar expenses incurred by other businesses and to ascertain in a neutral way how the income of a prospecting venture should be determined. Ideally, the conclusions drawn from that discussion would have pointed to a single preferable method of income determination. But in the result it appears that there are two possible methods of dealing with prospecting costs, either expensing them immediately or deferring them until revenue is produced or the property is abandoned. The choice between these alternatives, while favouring the latter, is not conclusive.

24. When the subject of taxation is introduced, another important factor must be considered. This is that exploration is a risky type of enterprise, a fact which is often extended into the statement that mining is a risky industry. These statements are important in the taxation of mining enterprises and merit some analysis.

25. The chief characteristic of a risky industry is that a relatively large number of ventures must be initiated before it becomes likely that revenues from all ventures will exceed costs of all ventures. When very

many ventures are initiated, the distinction between a risky and a safe industry disappears. To write one life insurance contract is risky; nothing could be much safer than to write a million. Risk is a function of the volume of transactions and therefore generally a function of size. In mining, many prospecting ventures must be initiated before there is any appreciable chance of developing a profitable mine. The experience of one large Canadian mining company is that 1 in 600 properties examined proves to be a profitable mine.

26. It is therefore a natural and predictable result that many taxpayers engaging in prospecting will incur costs, possibly substantial, and not discover anything of commercial value. A tax system which imposes a tax on every taxpayer having a net profit from mining and ignores every taxpayer having a net loss will charge the mining industry as a whole with a heavier burden than it imposes on an industry which does not require the initiation of such large number of ventures before one is profitable. The conclusion that flows from the statement that an industry is risky is that a tax system looking only to the profits of profitable enterprises will tend to impose a heavier tax on that industry as a whole than on one which is safe. In the case of prospecting, which is probably the extreme example of a risky enterprise, this tendency becomes a certainty, so that such a system is inequitable for the mining industry.

27. One remedy would be to devise means of recompensing the unsuccessful prospectors for their abortive expenses. A direct means of doing this would be to provide for a payment by the government to the unsuccessful taxpayer for his prospecting losses in the same amount as the taxpayer would pay to the government on his mining profits. However, to implement

this suggestion would be to adopt a wide-reaching philosophy of taxation and consideration of it is beyond the scope of this study.

28. Another means of achieving the same result would be to make prospecting expenses freely transferable between taxpayers. If this were done, the unsuccessful prospecting company could expect to find a ready market for its abortive expenses since a profitable taxpayer would pay, at a rate close to his top rate of tax, for the right to deduct them from his profits. In theory, any taxpayer should be able to acquire such expenses since the object of allowing the transfer would be to recompense the unsuccessful venturer in a risky enterprise and who recompensed him would be of no concern. However, prudence suggests that prospecting expenses should be freely transferable only between taxpayers both of whom are in the mining industry so that any concessions affecting that industry would affect the successful and unsuccessful venturer alike.

29. Unlimited transferability of exploration expenses is also open to certain objections. It may run counter to the Commission's general recommendations concerning business losses; because of interprovincial transfers it might not be adaptable to determining income in a uniform manner for both federal and provincial purposes; and it would add considerably to the number of taxpayers whom it would be necessary to assess.

30. On the other hand, one can think of a system in which there were no rights of transfer whatever. At present, prospecting expenses incurred by one corporation can be deducted by another as follows:

(a) If the property owned by the corporation incurring the expenses is transferred to another corporation, the transferee can deduct those expenses from income derived from the transferred property. If an income-producing property is acquired by the transferor shortly before the transfer, all of the expenses can become deductible;

(b) If the corporation incurring the expenses is a "joint exploration corporation", it can renounce its expenses in favour of a shareholder in certain circumstances. A corporation which has incurred prospecting expenses can at any time acquire an income-producing property and deduct its accumulated expenses from the income so derived. There is thus no attempt in the existing legislation to match prospecting expenses incurred on particular properties with the income derived from those properties.

31. Complete non-transferability would mean the repeal of these existing provisions and it would have the following disadvantages:

(a) It would discriminate strongly against the companies which did not have an existing source of income and would therefore put the typical exploration company at an even greater disadvantage than it is now in comparison with the established companies;

(b) While this inequity could probably be mitigated by requiring all corporations to defer prospecting expenses in some manner, this requirement would lead to administrative difficulties quite comparable to those of allowing unlimited transferability.

32. Partial transferability along the lines of the existing provisions could be retained although, if this were done, some of the technical anomalies referred to in paragraph 38(c) would presumably have to be corrected

and much attention would have to be paid to simplifying the existing provisions. The present system is, however, difficult to defend in theory because it admits the right to transfer expenses regardless of the consideration given, but also imposes some rather technical restrictions. These restrictions state, in effect, that a transferor can deduct his expenses only from income of his own properties while a transferee can deduct them either from income of his own properties or from that of the properties transferred. Since it usually makes no difference, in business terms, whether Corporation A acquires all the assets of Corporation B followed by the liquidation of B or B acquires all the assets of A followed by the liquidation of A, the distinction between transferor and transferee is largely artificial and the form of the transaction will be suited to the tax result. It seems most doubtful whether there is any theoretically defensible position between complete transferability and complete non-transferability.

33. The advantages and disadvantages of each system may be summarized shortly:

PRO	CON
Complete non-transferability	
Would tend to equate with recommendations for business losses (if these are comparable).	Would discriminate against newcomers. While such discrimination might be mitigated by requiring all corporations to defer prospecting expenses, this would raise administrative problems.
Partial transferability (present system)	
Administratively inexpensive. Fairly appropriate to the industry.	Difficult to justify theoretically, distinction between transferor and transferee being one of form rather than substance. Technically complex.

PRO	CON
Complete transferability	
Appropriate to the industry and theoretically justifiable. Technically simple.	May not equate with recommendations for business losses (if these are comparable). Involves additional administrative expense.

It appears that a choice between the possible systems is not one that can be made in the context of mining alone. If complete non-transferability were selected, some fairly major changes in the recommendations for dealing with prospecting expenses might then be appropriate to equate newcomers and established companies.

34. If there should be complete freedom to transfer prospecting expenses between mining companies, the fundamental choice between deferring or writing off prospecting costs becomes heavily weighted in favour of writing them off. If it were otherwise, the unsuccessful exploration company could immediately recoup a part of its losses by selling its exploration expenses, while the integrated company would have to accumulate the expenses of an unsuccessful programme until it finally discovered a profitable mine. If prospecting expenses generally had to be deferred until the related properties were either put into production or abandoned they would also have to be non-transferable in the same period. The attempt to prescribe the conditions under which expenses would not be transferable would surely lead into the same sort of labyrinth as we now have in section 83A. On the other hand, immediate deduction and free transferability of such expenses within the mining industry greatly minimizes the technical difficulties. It may also be noted that in the "joint exploration corporation" provisions (see paragraphs 247 to 249), the existing legislation has provided to some extent for the transfer of prospecting expenses.

35. On balance, a logical system to recommend is that prospecting expenses be deductible from income as incurred and, to the extent that they exceed income, be transferable (whether or not the related properties are transferred) to a corporation engaged in mining.

Main Features and Background of the Present System in Canada

36. Under our system of taxation, the inability to relate costs fairly closely with the production of revenue has tended to result in the costs being treated as capital expenditures. For a long time, indeed, Canadian courts doubted that costs that were not closely connected with the production of revenue were even "laid out to earn income". 9/ These doubts now seem to be largely laid to rest 10/ but treatment of such costs as being capital expenditures is common. This treatment rests on the grounds that such costs are incurred to create a source of income rather than to produce income directly and prospecting expenses have been the subject of such decisions. 11/

37. While prospecting expenses are fundamentally not deductible in computing income for Canadian tax purposes, special provisions exist in section 83A of the Income Tax Act and regulation 1205 permitting their deduction in certain circumstances. These provisions are too complex to summarize accurately in a short space but, in general, they permit without any time limitation:

(a) the deduction of prospecting expenses incurred in Canada from any source of income by a corporation whose principal business is mining or exploration, or the processing or fabrication of metals;

(b) the deduction of prospecting expenses incurred in Canada from oil or gas income by any corporation;

(c) the deduction of prospecting expenses incurred in Canada from any source of income by a corporation or individual operating a mine to which the expenses are reasonably attributable;

(d) the transfer of prospecting expenses between corporations in limited circumstances.

38. Deductions of this type were first allowed in 1943 for base metal and strategic mineral mines and the provisions have gradually been extended to a wider range of taxpayers by numerous amendments since that time. However, they still contain some severe limitations:

(a) they do not apply to any prospecting expenses incurred outside Canada,

(b) they do not apply to prospecting expenses incurred by a non-mining corporation or by an individual unless an operating mine actually results, and

(c) they further restrict the deductibility of such expenses following certain corporate mergers; thus if a mining corporation sells all of its mining assets and business to another corporation the prospecting expenses which have not been deducted prior to that time are thereafter deductible only from income produced by the properties included in the sale (section 83A(8a)); should such a corporation amalgamate with another, the prospecting expenses of each corporation not deducted prior to that time are thereafter restricted to income produced by properties owned by it at the time of the amalgamation (section 85I(3));

should a purchasing corporation in such circumstances subsequently enter into an amalgamation, the prospecting expenses carried through the first purchase cease to be deductible from any income whatsoever; a purchasing corporation can pass on the "purchased" expenses, subject to the same restrictions, to a second purchaser (section 83A(8d)), but a second purchaser cannot pass them on to a third purchaser; and an amalgamation corporation cannot pass them on at all, either in a second amalgamation or a sale. Thus, in summary, the ability to deduct prospecting expenses is restricted following any type of corporate merger and may lapse entirely following a second merger.

39. Special provisions also exist in section 83 of the Act for prospectors and grubstakers. While no provision is made for such persons to deduct their exploration expenses, they may exclude from their income amounts received from the sale of interests in mining properties acquired as a result of prospecting work, and amounts received from the sale of shares acquired in exchange for such mining properties. These provisions were introduced in 1950 and gave statutory authority to the previous practice of the Department which the then Minister of Finance "frankly thought the terms of the law scarcely justified". 12/ The exemption to prospectors is presumably rooted in the days when prospecting was not an organized activity and every discovery could be considered a "windfall". Prospecting has always been regarded as an activity worth encouraging and the same treatment was, no doubt, easily continued even when prospecting became very much of a business. While this is a reasonable surmise it has not been possible to discover any authoritative statement to this effect, except what may be implied from the quotations contained in Section III of this study (paragraphs 230 to 232). Administrative considerations also support this

treatment because to tax prospectors on their income requires either that the consideration which they receive for the sale of mining interests be valued (an almost impossible task) or that taxation be deferred until the consideration is converted to cash, which requires that the prospector keep fairly detailed records.

Similar Provisions in Other Countries

40. The provisions of the income tax legislation of Australia, South Africa and the United States affecting mining enterprises are described in some detail in Section IV of this study.

41. In Australia, exploration and prospecting costs are allowed as deductions to individuals and corporations to the full extent of income from mining and related activities but not from other income. To the extent that the expenses exceed income from mining for the year they may be carried forward and amortized against mining income arising subsequently. Amounts received from the disposition of mining rights for gold and certain other specified minerals in excess of amounts previously deductible are exempt when received by bona fide prospectors or those, individuals or corporations, who have financed them.

42. In South Africa, prospecting and exploration costs were until recently deductible only from the income of a producing mine. They are now also deductible by financial and prospecting companies from any income, but no deductions are permitted to individuals. Expenses on a property which becomes a producing mine and which were not deducted prior to the commencement of production may be amortized over the life of the mine.

43. In the United States, prospecting and exploration costs are

fundamentally not deductible as such. However each taxpayer, corporation or individual, is permitted, if he so elects, to deduct such costs from current income up to $100,000 per annum and $400,000 in total. Expenses on each group of claims in excess of these limits are capitalized and are deductible over the life of the mine if a mine results, or are deductible as an ordinary business loss in the year in which the claims are abandoned.

44. In summary, the Australian and South African provisions are similar to the existing Canadian provisions. The United States provisions are considerably more liberal.

Discussion of General Recommendation

45. Consideration of how to determine mining income and of the risks involved in exploration led to the general recommendation that prospecting expenses should be deductible from income as incurred and it also appeared sensible that such expenses should be freely transferable to mining corporations.

46. It follows from this general recommendation that the present legal rule that prospecting expenses are capital in nature should be reversed and that prospecting expenses should be fully deductible. It also follows that provision should be made whereby mining corporations could enter into agreements, binding on the Department of National Revenue, under which they would be entitled to deduct prospecting expenses incurred by others. These suggested amendments are clearly too broad to apply universally without modification, and in order to arrive at more specific recommendations their implications for the various persons carrying on prospecting work will be examined.

Integrated Mining Company

General Effect of Recommendation

47. The ability to deduct all prospecting expenses incurred by it would not greatly alter the present position of the integrated mining company. The only effect would be to enable it to deduct prospecting expenses incurred outside Canada which it cannot now deduct. Conversations with officials of various mining companies suggest that the present restriction does not generally curtail a foreign exploration programme. If a prospect is sufficiently attractive to offset the political uncertainties which often exist in foreign countries having mineral resources, the tax disadvantage appears insignificant. The chief geologist of one of the major exploration divisions stated that pounds of metal discovered per exploration dollar are in the case of some foreign countries "fantastically higher" than in Canada, a statement which suggests that lack of tax deduction is a relatively minor deterrent. However, since foreign deposits are presumably going to be developed as soon as political conditions permit there seems to be no reason why there should be any discrimination in Canada's tax laws against development of them by Canadian mining companies, many of which are well staffed and equipped to do so.

48. A few companies spend substantial amounts in foreign exploration and the recommendation would remove an inequity from which they presently suffer.

49. Giving mining corporations the ability to deduct prospecting expenses incurred by others would have the general effect of facilitating what can now be done by rather elaborate corporate manoeuvres. At present, a corporation which is entitled to deduct prospecting expenses can do so only to

the limit of its income but the balance remaining is always available for deduction at a future time. Thus a corporation having a balance of prospecting expenses can acquire another mine and deduct those expenses from the income which the acquired mine produces. Under the proposed system, integrated mining companies would make payments to unsuccessful prospectors for the right to deduct prospecting expenses not deductible by the prospectors. These payments would be at a rate somewhat below the rate of tax which the corporation would expect to save and a market in prospecting expenses of both small and large amounts could be expected to develop. While this would be an unusual feature for a tax system to promote it seems to be unobjectionable when the purpose is to even out the risks in an admittedly risky activity. It appears to be a logical method of achieving this purpose without undue governmental intervention.

Technical and Administrative Aspects

50. The ability to deduct all prospecting expenses from income as incurred could be easily provided and needs no discussion. Immediate deduction would, however, imply that prospecting expenses would create business losses, where they exceeded income, rather than being carried forward indefinitely, as at present, in the form of deferred costs. Combined with freedom of transfer, however, this does not appear to be an inequitable result although it does not seem necessary that business losses arising from deducting prospecting expenses (or, for that matter, any business losses) should have a time limit set on their deduction.

51. The ability to transfer prospecting expenses could also be a fairly simple matter. The transferee and transferor could make an election in a prescribed form, which would be filed with the Minister, whereby the

prospecting expenses deductible by the transferor for its taxation year specified in the election would become deductible by the transferee for its taxation year so specified. The Minister, on assessment of the transferor for the year, would advise both parties of the amount of the transferor's deductible prospecting expenses for the specified year and this would establish the amount deductible by the transferee for purposes of his assessment. With this type of election, one could expect that a standard form of transfer agreement would be formulated for use by mining corporations calling for a payment at a bargained rate applied to the amount of the assessment and payable when the assessment was delivered. Amounts paid and received for the transfer of prospecting expenses would naturally not be deductible or taxable, but would be treated as income taxes paid or refunded.

<u>Revenue Aspects</u>

52. It appears that foreign exploration is in general not a significant activity of Canadian companies, although it is for a few. Our enquiries indicate that some 5 per cent of all exploration work of Canadian companies is done outside Canada. Applied to total prospecting expenses of $45 million (DBS 1960), this would amount to $2.2 million annually. Assuming an income tax rate of 50 per cent, annual loss of revenue would be some $1.1 million.

53. Since it appears that the majority of prospecting expenses are already incurred by the larger companies, presumably including the profitable integrated companies, the revenue loss from the recommendation for unlimited transferability would probably not be significant. DBS indicates that for 1960 only 14 per cent of prospecting expenses were incurred by companies

spending less than $100,000 and not having a producing mine. Possibly 20 per cent of all prospecting expenses or $9 million annually would not be deducted. At a tax rate of 50 per cent, the proposal indicates an annual revenue loss of $4.5 million.

Exploration Company

General Effect of Recommendation

54. The ability to deduct all prospecting expenses would affect the exploration company in the same way as the integrated company in equating Canadian and foreign exploration. One area of possible abuse becomes apparent, however. Persons contemplating overseas travel could by forming an "exploration corporation" and designating the purpose of the travel as "prospecting", claim deductions for all of the travelling expenses and could then sell them under the proposed transfer provisions so as to recoup a part of their expenses. While only a few fairly ruthless taxpayers would go to these lengths, the possibility of abuse exists. In order to avoid complications which might prove unnecessary, restrictive measures should probably not be introduced initially; if they prove necessary, however, they might be by way of allowing travel expenses for prospecting outside Canada to be deducted only where the sole purpose of the travel was shown to be in connection with prospecting or prospecting combined with other businesses.

55. The ability to transfer prospecting expenses freely would affect exploration companies considerably since most of the prospecting expenses which are never deducted under the existing provisions are incurred by exploration companies. These companies would therefore be the principal beneficiaries of the proposal, which is of course the intended result. They would be able to recoup a proportion of their abortive exploration expenses (at a

rate slightly below the normal rate of tax) and so be in a net position comparable to that of the integrated companies. This should tend to have the general effect of increasing the number of companies engaging in exploration and, provided that a sufficient number of trained personnel are available, of increasing overall exploration activity.

Technical and Administrative Aspects

56. The technical considerations are, in the main, the same as those for the integrated companies. An additional factor affects exploration companies. At present, such companies are frequently the beneficiaries of the exemption granted to grubstakers under section 83(3) of the Act, as being persons who have "advanced money for, or paid part or all of, the expenses of prospecting or exploring for minerals or of developing a property for minerals". As a result they are not required to include in income amounts received from the sale of mining interests or from the sale of shares received in exchange for such interests. This exemption may have some justification for exploration companies in a system where the deduction of exploration expenses is restricted and some expenses may never be deducted at all. In an imprecise way, the non-taxable income may compensate for the non-deductible expense. This may be rough justice for some but it is also inequitable because the same exemption applies to the company which has income from which it has deducted its exploration expense. A more logical and equitable result would be to allow unlimited deduction and transfer of prospecting expenses, as recommended, and the repeal of the grubstakers' exemption for exploration corporations.

57. The method of dealing with income from sales of mining properties is dealt with in a later section. Later sections also deal with the

grubstakers' exemption as it applies to individuals.

Non-Mining Company

General Effect of Recommendation

58. The general effect of the recommendation for non-mining companies would be to extend to them the ability to deduct prospecting expenses in full. At present they are entitled to deduct only those expenses which are reasonably attributable to an operating mine. Since a non-mining company rarely participates in exploration, the uncertainty of result means that its prospecting expenses are most unlikely to be deductible.

59. The alternatives here are to let the recommendation stand in its general form or to restrict the deduction of prospecting expenses, in the same way as they are now restricted, to companies whose principal business is mining or exploring. However it must immediately be noted that the present restrictions have gradually been relaxed by allowing a wider range of companies to deduct prospecting expenses. As well as mining and exploration companies, oil and gas companies, mineral and metal processing companies, metal fabricating companies 13/ and pipeline companies are now entitled to the deduction of prospecting expenses. There are beginning to be enough exceptions to the rule that a new rule should probably be formulated in any event.

60. The reason for the restriction is presumably an administrative one. It is no doubt thought that the employees of private companies who are also shareholders would charge camping, fishing and hunting expeditions to the government by allegedly "prospecting" on behalf of their companies. The line between protecting the revenues and curtailing normal business ventures has to be drawn somewhere and this restriction is the price now paid for

ease of administration.

61. On the other hand, substantial concessions have been granted to mining ventures, presumably to encourage new capital to enter into mining operations, and it is somewhat contradictory to confine this encouragement to capital which is already in mining. Although, in a later section, it will be suggested that the existing concessions do not have a strong effect of encouraging new capital into mining, their history shows that they were intended to do so. It is therefore suggested that the general recommendation for deductibility and transfer of prospecting expenses not be restricted to any particular class of corporation. However, there does not seem to be any necessity for permitting non-mining companies to be the recipients of transferred prospecting expenses, since an adequately competitive market for such expenses would be created by the mining companies alone.

Technical and Administrative Aspects

62. In general, the technical considerations are the same as for the integrated mining and the exploration companies. In addition, if non-mining companies are to be excluded as transferees of prospecting expenses a distinction between a mining and a non-mining company must be formulated.

Revenue Aspects

63. The revenue aspects of extending full deduction and transferability of prospecting expenses to non-mining companies are difficult to judge because the prospecting expenses of non-mining companies are at present negligible. Such companies would claim deductions for prospecting expenses only as a result of a general increase in exploration activity or of switching their capital from a non-mining to a mining use. Since the latter would occur only if the companies concerned regarded the mining use as more

productive, it appears that deductions of prospecting expenses by non-mining companies would have to be reflected by increased activity or increased profit or both. While there would be a time-lag between the expenditure and the resulting profit, the general effect on the revenues should be beneficial. This conclusion, however, ignores the effect of tax concessions granted to mining operations. If substantial concessions continue to be granted facilitating the transfer of capital from non-mining to mining uses could result in reduced revenues but to what degree it is impossible to say.

Independent Individual Prospectors

General Effect of Recommendation

64. For individual prospectors, the general effect of the recommendation would be to change the present scheme of taxation considerably. They are now not permitted to deduct prospecting costs and do not have to include in income amounts received from the disposition of mining interests. The present treatment has a historical and administrative explanation but, in theory at least, the recommended treatment would be more attractive. Prospecting is a business activity and there do not seem to be any *prima facie* grounds why it should not be subject to tax. Immediate deduction of prospecting expenses and taxation of income from the sale of mining interests was also recommended to the Commission by one of the participants, who made the persuasive statement that persons engaging in or financing prospecting ventures were, from the tax point of view, more interested in the effect of failure than of success. 14/ Bearing in mind the uncertain nature of exploration, this remark rings true. The recent dramatics at Timmins are instructive. How many of those who rushed from all parts of the country to stake claims in Kidd Township are likely to have been moved by the knowledge that they could dispose of their interests tax-free? On the other hand, when a

sober-minded and realistic group of people get together to consider financing a new prospecting venture, surely the risk of failure is one of the first financial matters they consider.

Technical and Administrative Aspects

65. Unfortunately, technical and administrative factors weigh heavily against the general recommendation. A prospector's income, if it is regarded as the consideration which he receives for the sale of his claims, is almost impossible to measure because this consideration is usually in the form of an interest in the proceeds of future production or of shares of a company formed to develop the claims. If, as appears reasonable, he should not be regarded as having received income until he converts the consideration he receives into cash or near-cash, he must identify the consideration received and account for it year by year until it is finally converted into cash or becomes worthless. It is questionable whether such a system could ever be made to work with a peripatetic group of people such as prospectors.

66. However, the general recommendation should not be abandoned in view of these obstacles without examining a possible administrative solution. In a later section of this study, the possible taxation of the purchase and sale of mining interests is discussed and the conclusion is reached that, for taxpayers who keep adequate records, a workable system could be based on recognizing income from the sale of mining properties only when the consideration received is in the form of cash. This would be regulated by allowing deductions for mining properties but only to the extent that they were paid for in cash. It appears possible to extend this system to prospectors, so that in respect of mining properties their income would consist only of cash received, and purchasers of mining properties from prospectors would be

entitled to deduct only cash paid. If a prospector also received shares, other corporate securities or property interests he would be taxed on their subsequent sale according to the general method of taxing security transactions. Such a method would not be perfect but it would be more appropriate than the present one.

67. Under such a system the appropriate rate at which to tax the prospector's revenue would also have to be considered. When earned, it would often be quite substantial and the effect of a graduated rate of tax would be confiscatory. A flat-rate or average-rate tax would be appropriate.

68. A further feature necessary to make the system work would be a requirement on those purchasing interests in mining properties from individuals to withhold a portion of the cash consideration (say, 20 per cent) and remit it to the government as tax paid on behalf of the individual. Only in this way, probably, would it be possible to keep track of the prospectors for tax purposes.

69. Should such a system be introduced, the question would also arise as to whether the proposal for unlimited transferability should be extended to the prospecting costs incurred by the individual prospector. If it were, it would tend to have the result of making all prospecting costs whether incurred by individuals or corporations deductible at the corporate rate.

70. Taking all these matters into consideration, even the simplest system would have to be somewhat complex. Having regard also to the apparently diminishing influence of the individual prospector (a trend that appears to be taking place for reasons not connected with taxation), it must be concluded that the technical and administrative aspects appear to outweigh the

theoretical considerations and that for individual prospectors the present system seems to be more appropriate than that suggested by the general recommendation.

71. This conclusion requires that the technical and administrative aspects of the present system be examined, but since the points of interest principally affect grubstakers, rather than prospectors, this examination will be deferred until the next section.

Grubstakers

General Effect of Recommendation

72. Grubstakers are those persons, usually individuals, who finance prospectors. At present they are treated in the same manner as prospectors and the implications of the general recommendation are therefore also the same. Again, theoretical considerations favour the general recommendation over the present system. Accordingly, grubstakers would be entitled to deduct the amounts spent by them on exploration and would include in income the consideration received for the sale of mining interests which they had acquired.

Technical and Administrative Aspects

73. As with prospectors, these weigh heavily against the general recommendation. In addition to the matters which would have to be covered in order to apply the general recommendation to prospectors, the effect of a graduated rate of tax becomes of even greater importance for grubstakers. If the revenue is taxed at a flat or an average rate, a concession would be granted to wealthy individuals who acted as grubstakers. The losses of unsuccessful ventures would be deducted from top-bracket income while the profits of successful ventures would be taxed at the flat or average rate, an effect which, under similar United States provisions, has drawn many film stars into

exploring for oil. This effect might be mitigated (unless it were deliberately retained as an incentive) by providing a maximum rate of tax which would apply both for the deduction of the grubstaker's costs and the taxation of related income but it would represent a further complication. As with prospectors, therefore, consideration of technical and administrative problems tips the scale in favour of retaining the present system. In the case of grubstakers, however, the present system requires some fairly close examination.

74. First, the exemption of grubstakers does not accord with the proposed treatment for exploration companies for which it is suggested that expenses should be deductible and sales of properties be included in income. Both grubstakers and exploration companies carry out the functions of financing exploration and to exempt one while taxing the other is not logical.

75. Secondly, the grubstaker's exemption, as it is now constituted, permits a degree of abuse. It is not uncommon for an individual to employ a prospector for a relatively short period of time and "through the employee's efforts" to acquire a mining property, which may or may not have potential value. He will then sell this property to a corporation formed for the purpose, taking back, say 20 per cent of its authorized shares referred to as "vendor's shares". An underwriting corporation (with which the individual himself may be closely connected) then makes a market for the remaining 80 per cent of the shares in the course of which the individual sells the 20 per cent which he has acquired. This 20 per cent qualifies for the grubstaker's exemption under section 83(3) and is not caught by the restriction in section 83(4) because the individual has not himself carried on the "campaign to sell shares to the public". The grubstaker's exemption is thus

probably as notable for encouraging stock market promotions as it is for encouraging exploration.

76. Lastly, it may be observed that the proposal for the free transfer of prospecting expenses by exploration companies places the grubstaker in a position where he can effectively claim the deduction of prospecting expenses at the corporate rate if he is prepared to form a corporation for the purpose. He would achieve this by lending the funds for exploration to the corporation and if the prospecting was abortive by having the corporation sell the expenses (probably for about half their amount) and repaying part of the loan.

77. These considerations suggest:

(a) that the present grubstakers' exemption is too wide,

(b) that it does not accord with the proposed treatment of exploration companies, and

(c) that with the proposed treatment of exploration companies, no special treatment of grubstakers is necessary.

78. A better alternative than either the present system or the general recommendation might be to discourage individual grubstaking activity entirely (its legitimate uses in mining in any event seem to be limited) and to channel it into exploration companies where it could be more simply administered and regulated. This would no doubt be achieved if no special deduction of prospecting costs were allowed to individuals (as has already been recommended for prospectors) and if the special provision exempting from taxation the proceeds of sales from mining properties were not extended to

grubstakers. Such treatment might seem to be somewhat severe but it would really amount to no more than requiring grubstakers to carry on their activity in the corporate form.

79. Alternatively, the present system could be continued so that grubstakers would then have the option of using the "deduction and income" of the "exempt" method depending on whether or not they employed a corporation. 15/ In this case, the abuse of the present provisions would have to be corrected. Since there would always be the option to use the corporate method, the prohibition could be in fairly broad terms. It is suggested that, in the case of the sale of shares, the exemption should not extend to any person engaged in the business of trading or dealing in securities, or to any person who was a member of, or related to any member of, a related group of persons owning 10 per cent or more of the voting power of a corporation engaged in such business.

80. Of these possibilities, the channelling of grubstaking activities into the corporate form appears simplest. However, retaining the existing system (with the necessary technical amendments) is an acceptable alternative, and it may be preferable in view of simplifying the treatment of purchases and sales of mining properties. (See paragraphs 180, 181.)

Revenue Aspects

81. The amount of grubstaking carried on is not large and the ability to deduct (through the corporate option) prospecting costs financed by grubstakers should not cause any substantial reduction of revenue. On the other hand, correction of the abuse referred to would undoubtedly increse revenues to some extent. It might also tend to curb certain types of stock market

promotion, but if it did not, the increase in revenues might be quite substantial.

Other Individuals

82. This heading is included for the sake of completeness but it only has meaning in the present context if an individual can be regarded as carrying out prospecting or grubstaking activities without being a "prospector" or a "grubstaker". Under the present system, the provisions of section 83 extend to full-time and part-time prospectors and to any person who finances them. It seems unnecessarily complex to consider any special category for part-time prospectors and the continuance of the broad definition of "prospector" is recommended.

83. However, there are also those who purchase and sell mining properties or who, having acquired them through prospecting, do not sell them but develop them to operating mines. The first of these is a particular kind of trading activity and one which does not seem to require special attention here. The rare individual who develops a mine is presently permitted to deduct his prospecting expenses at the rate of 25 per cent per annum under regulation 1205 from the income of the mine. This treatment appears equitable although it should probably be equated with the rules for deducting development costs by corporations. It will therefore be referred to again under Development (paragraph 127).

Summary and Specific Recommendations

84. In light of the foregoing discussion, the general recommendation made in paragraph 35 can be reduced to a number of specific recommendations:

(a) that prospecting expenses incurred inside and outside Canada be deductible in full by any corporation from existing income but that they not be deductible by individuals except as at present;

(b) that such expenses incurred by corporations, to the extent that they exceed income, be transferable at the taxpayer's option to any mining corporation; that any amounts paid between corporations for the transfer of expenses be treated as income taxes paid or refunded; and that possibly a safeguard against deduction of foreign travel expenses would have to be introduced, but not initially;

(c) that proceeds from sales of mining properties by corporations be included in income on a cash basis (see also paragraph 181 below);

(d) that the exemption from tax in respect of sales of mining interests and shares now granted by section 83 of the Act be restricted to individuals and possibly to individuals actively engaged in prospecting; and

(e) that, if this exemption continues to be granted to individuals not actively engaged in prospecting, the possibilities of abuse now available be removed.

PROPERTY EXAMINATION

INTRODUCTION

85. The second stage in proving the worth of a property consists of a detailed examination of the claims staked and of the surrounding area by a variety of methods such as surface prospecting, diamond drilling, geological, geophysical and geochemical techniques. The purpose of this effort is to determine the perimeter, depth and grade of the orebody and the extent of overburden. Initial calculations of the potential worth of the property can

then be made.

86. The degree of uncertainty is naturally not as great in property examination as it is in prospecting. At the end of the prospecting stage (as defined) the chances of developing a profitable mine may be no better than 1 in 100. Property examination then narrows down the chances to the point where a decision can be made to develop the property as a mine or to abandon or otherwise dispose of it. When property examination continues to reveal favourable results, a programme will typically extend over many years before a decision to develop a mine can be taken. Much of the important exploration activity in Canada today is directed towards the development of base metal deposits where success often depends on outlining an orebody of considerable size. 16/ Property examination also describes the activities of companies, such as Falconbridge and International Nickel, which own many claims in areas adjacent to existing mines where conditions are known to be favourable. These claims are constantly under examination but even in these relatively favourable conditions, new discoveries are rare.

87. Everything that has been said concerning the attitude of the integrated mining company towards prospecting holds true of property examination. For such a company, this activity is part of the whole process of deriving mineral products from the earth's surface. Much property examination work is also carried out by exploration companies. While these companies do not usually have the resources to develop mines, they expend considerable effort on prospecting for and examining properties with the object of bringing them to the stage where major mining companies will be encouraged to develop them as mines. If this happens, the exploration company will usually retain a substantial interest in the property either directly or more usually by

shares of a company formed to develop the property. For this reason, the objectives of an exploration company can be equated with those of a mining company (i.e. to develop a mine) because without the mine the shares are valueless.

ACCOUNTING

88. The factors governing the determination of income from property examination are the same as those for prospecting which have been discussed above. It was concluded that for prospecting costs the degree of uncertainty inherent in the activity together with the nature of the revenue received made an immediate write-off somewhat preferable to deferment. Does property examination have the same characteristics and therefore warrant the same accounting treatment?

89. So far as the degree of uncertainty is concerned, this question raises an insoluble problem. Examination of a particular property begins with much uncertainty as to the result; it concludes with a decision to mine or to dispose of the property, one usually made with some degree of certainty. Somewhere in the course of successful property examination, short of actually making the decision to go ahead, a reasonable expectation arises that a profitable mine can be developed. From this point forward, accounting theory would suggest that the concept of matching costs and revenues is relevant and that the costs should thereafter be deferred. It is clearly beyond the capacity of an accounting system to develop rules which will define this point of time. It is therefore a matter of judgment for each person carrying out property examination as to the degree of expectation which warrants deferment and how to recognize when that degree has been attained. Naturally, some variety of treatment is found in practice. Of the eleven companies

replying to the questionnaire on property examination, nine stated that such expenses were written off as incurred, one that they were deferred until a decision was made about the property and one that they were deferred only when there was strong evidence of mineralization.

90. Replies to the questionnaire also revealed another accounting matter which bears on this topic. It appears that relatively few companies keep separate accounts for prospecting and property examination costs. Most of them make no distinction between the two activities, and, indeed, the two activities may well be regarded as one, in which there is a gradual focussing on a smaller and smaller area. To draw a distinction between prospecting and property examination would, in the taxation context, mean an additional cost of compliance.

91. So far as the nature of the revenue is concerned, the considerations are the same as for prospecting. The exploration company is the prime example of the enterprise which concludes its activity at the end of the property examination stage and, as mentioned above, the consideration received by the exploration company for the disposition of its properties is usually in the form of shares.

TAXATION

Criteria for an Appropriate System and General Recommendations

92. With the determination of income in this area being unavoidably subject to individual judgment, a choice exists between allowing this judgment to affect taxation or to provide legislative rules to govern taxation regardless of the accounting treatment.

93. In favour of allowing individual judgment to govern is the fact that

the great majority of Canadian mining and exploration companies are public companies and this would tend to prevent the judgment being exercised to suit the tax result. However, it has to be admitted that there would be a tendency to stretch accounting judgments to fit tax results, an exercise that would work to the detriment of accounting.

94. Of the arbitrary rules that could be adopted, the most straightforward would be to permit all property examination costs to be deducted in the period in which incurred, this being essentially the rule in force now. About the best that could be done to provide for an arbitrary deferment would be to require the deferment of all costs incurred in the year in which the decision was taken to proceed with development of the mine; to require any deferment of costs prior to that year would be to reach too far back into the area of uncertainty.

95. Use of individual judgment would probably tend to produce the same result as an arbitrary allowance of all expenses as incurred. The other arbitrary rule suggested would tend towards the same result also, since evidence of the decision to proceed with development would be largely within the control of the taxpayer and there would be a natural tendency to record such decisions at the beginning of a subsequent year rather than during a year of intensive examination. While choosing among these alternatives is not clear-cut, the arbitrary rule to treat all property examination costs as expenses in the period incurred has the virtue of simplicity and avoids making an arbitrary decision which could be inequitable to the taxpayer. It is reinforced by the fact that many taxpayers do not distinguish between property examination and prospecting costs in their accounts.

96. Lastly, property examination is definitely a risky enterprise although

not as risky as prospecting. For the reasons discussed under PROSPECTING, the free transferability of property examination costs represents an attractive and practicable system.

97. These factors taken together point fairly strongly to a general recommendation for property examination costs in the same terms as that for prospecting, namely, that they be fully deductible by corporations and freely transferable to mining corporations. However, because the normal rules of income determination suggest that, at least in the final stages of property examination, deferment of costs is appropriate, it must be recognized that something of a concession is granted by this recommendation.

Main Features and Background of the Present System in Canada

98. The present treatment of property examination costs for tax purposes is identical to that described above for prospecting. Property examination expenditures are not deductible for tax purposes except as specifically allowed. Specific allowances are given under sections 83A, 85I of the Act and regulation 1205 in the same manner, and subject to the same limitations, as prospecting expenses. (See paragraphs 36 to 39 above.)

Similar Provisions in Other Countries

99. None of the countries examined had any special provisions for property examination costs. They were generally treated as part of prospecting costs.

Discussion of General Recommendation and Specific Recommendations

100. Because the general recommendation here is that property examination expenses be treated in the same manner as prospecting expenses, the same considerations apply. The summary of detailed recommendations of paragraph 289

can therefore be read as including the activity of property examination.

DEVELOPMENT

INTRODUCTION

101. The decision to develop a property marks the beginning of the third stage in the progress towards a producing mine. Information gathered in the prospecting and property examination stages will have been analysed and estimates made of the grade, size and characteristics of the orebody and of the costs of transportation and treatment. The development stage may be defined as the preparation of an area believed to contain ore for extraction of the ore in commercial quantities. Activities include clearing and stripping the property, removal of overburden, constructing roads and railways, housing, warehouses and power connections (possibly involving the construction of power facilities), shaft-sinking and underground development (or open-pit preparation) prior to extracting the ore, and installing a headframe and underground machinery. If the ore is to be treated at the mine site, activities also include preparation of an area for, and construction of, a mill and possibly a smelter. During this stage ore will be extracted in the course of underground work. While preliminary underground work is usually carried on as much as possible outside the mineralized area, conditions sometimes suggest that it be carried on in the orebody so that large amounts of ore may be extracted in this period.

102. The underground and surface work are planned for completion at the same time so that capital is tied up for the shortest possible time. When underground, rather than open pit, mining is carried on, a two-to-five year development period is typical. An open-pit operation can usually be brought in more quickly.

103. Because of the large sums involved, the bulk of new mine financing is provided by large mining groups. Some of the largest developments in recent years have been of iron ore deposits (Knob Lake; Carol Lake; Caland) where United States interests predominate and of uranium deposits where United Kingdom interests have been substantial. Other large deposits have been brought in by Canadian public companies which are probably not controlled in any one country; for example, Pine Point (Cominco), and the several properties financed by the Noranda group—Gaspé, Geco, and Mattagami.

ACCOUNTING

104. All of the outlays described are made for the purpose of creating a profitable producing mine. Careful consideration has usually been given to the possible results before development begins. However, it must not be thought that the venture has by this stage become a matter of merely digging up the metal. "The normal mining risks are too often forgotten by the layman. A successful mining operation must deal with great pressures, flows of water, heat, problems of ventilation, and tendency of the ground to fragment. Sometimes the effects of one or more of these forces can be drastic and greatly increase the cost of mining or even force the mine to abandon operations." 17/ Should any of these disasters occur, the value of the development expenses would be greatly diminished, so that to some extent the same risks are present as for prospecting and property examination.

105. However, the degree of risk is of a different order and is more properly comparable with that of some manufacturing enterprises—plastics, electronics—than of prospecting. Generally, therefore, the concept of matching costs and revenues is most appropriate and the majority of mining companies adopt it. Of the sixteen companies answering this part of the accounting

questionnaire, thirteen deferred all development costs and wrote them off over the expected life of the mine. Although none of the companies answering the questionnaire reported the practice of writing off development costs over an arbitrary period (say, four or five years) this is another practice occasionally adopted. 18/ The auditor's report on the financial statements of one private company which wrote off these expenses as incurred contained a qualification to this effect and a recalculation of the profit on the basis of deferring them. There seems to be little doubt about the appropriateness or acceptability of deferring development costs as the proper method of measuring income.

106. **Sales of ore produced in the development period may be regarded either** as a reduction of the development costs or, with an appropriate deduction for related costs, as income. Because the mill is usually not completed until about the same time as the mine and there are therefore no facilities for processing the development ore, it is often stockpiled. The sales of development ore then become mingled with the sales of first production. The proper accounting treatment here is a matter for individual judgment. When the raising of development ore is incidental to mine construction (as it is in the usual case where underground construction takes place largely outside the orebody) reducing development costs by the proceeds of sales seems to be the most appropriate treatment. Where the mine is designed in such a way that a significant amount of ore is removed before production begins, treatment of the sales as income, with an appropriate deduction for costs, may be indicated. If the latter method is adopted, determination of appropriate costs raises further problems. This can be done by taking normal extraction costs at adjacent mines or budgeted extraction costs when the mine reaches its normal operating level. Again there is great scope

for individual judgment. In practice, the majority of companies appear to credit sales of development ore against development costs.

107. Expenditures do not generally give rise to losses in the development period; all costs are deferred and written off when production begins. If depreciation charges are made in the development period, they merely result in a transfer from fixed assets to deferred costs. Unless the rate at which development costs are written off against income is substantially different from the rate at which mine equipment is depreciated, there is no point in taking depreciation during the development period. Since expenditures for both mine equipment and development costs are usually both incurred for the life of the mine, the general conclusion appears to be that no depreciation of equipment is called for in the development period.

TAXATION

Criteria for an Appropriate System and General Recommendations

108. It follows from the accounting theory that the most equitable tax treatment of development costs is to defer them and write them off pro rata against revenues from the sale of ore. This suggested treatment naturally raises the question of the appropriate rate at which to write them off and if this question cannot be dealt with in a manner satisfactory for tax purposes an alternative method of dealing with development costs must be found. Thus, while the rate of amortizing development costs is properly one for discussion under PRODUCTION, it will be dealt with here.

109. The alternative methods available for writing off development costs are: to write them off immediately against existing income, if any; to write them off immediately against the first income from the mine; to write them off over the life of the mine, subject to a maximum period; and to

write them off over the life of the mine with no maximum period. The pros and cons of each alternative (ignoring incentive effects which are dealt with later) can be briefly listed:

	PRO	CON
(a) Write them off against existing income.	Easy to administer. Certain of result.	Inequitable for other industries having development costs. 19/ Inequitable for new businesses, not having existing income. Not in accord with normal business practice or methods of income determination.
(b) Write them off against first mine income.	Easy to administer. Certain of result. For short-term projects, reasonably equitable in comparison with other businesses and new businesses and reasonably in accord with normal business practice. Would temporarily increase revenues over those from present system.	For long-term projects only, inequitable for other industries having development costs 19/ and not fully in accord with normal business practice.
(c) Write them off over life of mine with maximum period.	For projects longer than the maximum period: Easy to administer. Certain of result. For projects shorter than the maximum period: Fully equitable. In accord with business practice.	For projects longer than the maximum period: Somewhat inequitable. 19/ For projects shorter than the maximum period: Not easy to administer. Not certain of result.

(continued)

(continued)	PRO	CON
	Would temporarily increase revenues, and by a larger amount than (b).	
(d) Write them off over life of mine with no maximum period.	Fully equitable and in accord with business practice. Would temporarily increase revenues and by a larger amount than (b) or (c).	Difficult to administer. Uncertain.

110. Consideration of the points listed above (ignoring any incentive effects) suggests that the practical choice lies between methods (b) and (c). On the face of it, method (b) appears preferable because it is generally satisfactory and is eminently easy to apply. In addition, it may be difficult to adopt any better system for the development costs of other businesses in which case its only inequity would also disappear. However, method (c) would also be quite satisfactory if the maximum period were fairly short. If an eight-year maximum were adopted, for example, the method would in nearly every case be superior to method (b) for projects lasting longer than eight years. There would be some wrangling over the proper amortization period for shorter projects but these would ultimately be settled by the closing or non-closing of the mine before the ninth year. These alternatives will be considered again in the light of the incentive provisions in Section III; for purposes of a non-incentive system, either method (b) or method (c) is acceptable and, with a relatively short maximum period for the latter method, there is little to choose between them.

111. The appropriate treatment of sales of development ore is related to the amortization of development costs. If development costs are written

off against first mine income, it makes no difference whether sales of development ore are deducted from the costs or included in the income. If development costs are amortized over some fixed period there would be a difference and there would be a natural tendency on the part of taxpayers to treat sales of development ore as being incidental to mine development in all cases. Since they are in fact incidental in the majority of mines this tendency would not have any great effect. However if it were thought worth preventing, this might be simply done by providing that sales of development ore could not reduce development costs by more than a stated percentage (say, 10 per cent) of the costs; thereafter development costs could be charged against income from the sales only according to the normal method of amortization.

112. Normal methods of income determination suggest that it is not necessary to charge depreciation during the development period because it merely transfers costs from one asset class to another, both of which are ultimately written off at the same rate. For tax purposes this conclusion is not necessarily valid. First, a system of providing for depreciation should be applicable in the same manner to mining as to all other industries and, in a wider context, the life of the project may not be the appropriate time-scale for amortizing fixed assets. Secondly, a somewhat special form of amortization has been suggested above for development costs. Both these factors will tend to have the result of differentiating the methods of writing off development and fixed asset expenditures.

113. In this context it does not seem reasonable to require a different treatment of fixed assets entirely consumed in the development period from other development costs. It is therefore recommended that, with either

method recommended above for amortizing development costs, expenditures on fixed assets which are likely to be substantially or entirely consumed in the development period be treated as development costs. It should be noted, however, that this recommendation is not necessarily appropriate if development costs are written off against existing income.

114. The general recommendations for treatment of development costs therefore are that, for taxation purposes, ignoring incentive effects,

(a) development costs should either

  (i) be written off against first income from the mine, in which event no special regulation of the sales of development ore is necessary, or

  (ii) be written off over the life of the mine with a relatively short (possibly eight-year) maximum, in which event it might be necessary to restrict the extent to which sales of development ore should be credited against development costs, and

(b) development costs should include expenditures on fixed assets which are likely to be substantially consumed in the development period.

Main Features and Background of the Present System in Canada

115. Development costs are deductible under section 83A of the Act and Regulation 1205 in the same manner as prospecting and property examination expenses, described in paragraphs 36 to 38. They are thus deductible immediately from existing income, if any, or otherwise can be carried forward and deducted in full from income as it arises. The system is therefore essentially that which was considered in paragraph 109(a) and noted as

having some fairly serious inequities. Expenditures on fixed assets are not included in development costs.

Similar Provisions in Other Countries

116. In Australia, development costs may, at the election of the taxpayer, be deducted from income in the year incurred, but if not so deducted are amortized over the life of the mine, but not exceeding 25 years. The life of the mine is determined as of the end of each year and the write-off for the year is calculated accordingly.

117. In South Africa, development costs are deductible as incurred by new and deep-level gold mines, otherwise, they are deductible over the life of the mine not exceeding 10 years.

118. In the United States, they are deductible as incurred if the taxpayer so elects but otherwise must be capitalized and deducted pro rata over the life of the mine. Development costs include depreciation of equipment used in the development period.

119. In summary, each country bases its amortization policy partly on immediate deduction and partly on the life of the mine. In Australia and the United States, development costs can, as in Canada, be deducted immediately in all cases. In South Africa they are deductible immediately only in situations where special encouragement is given. The prevalence of "life-of-mine" calculations suggests that such calculations are not too onerous to administer.

Discussion of General Recommendation

General Effect of Recommendation

120. The general effect of the recommendation would be to defer somewhat

the deduction of development expenses by those companies which had existing income although, in respect of fixed assets consumed in the development period, it would provide something of an acceleration. If development expenses were deducted from first mine income, there would be virtually no change for companies which did not have existing income but if they were deducted over the life of the mine with a maximum period, those companies would also experience some degree of deferment.

121. The existing provisions represent something of a concession to mining companies in Canada. Reduction or removal of the concession might have some effect on the level of mining activity. However, taken by itself the timing of deductions for development expenses does not appear to have a drastic effect on payback periods or rates of return. See columns (1), (2) and (3) of Appendices A and B to this study.

Technical and Administrative Aspects

122. Deduction of development costs from first mine income is virtually free of technical and administrative difficulties. Possibly the only one that exists is to determine the "income" to the full extent of which the development costs would be deducted. This is done conveniently under the present system by providing that such expenditures are, in effect, the last expenditures (other than percentage depletion) to be deducted so that "income" is income as it would otherwise be before deducting them.

123. Deduction of development costs over the life of the mine with a maximum period is also fairly simple but it requires forecasting the life of the mine. If the life of a long-term mine had to be forcast this might be a serious objection to the method because the forecast could not be made with any degree of accuracy. However, since a relatively short maximum

period of amortization is recommended, no severe problem should arise. Similar legislation in other countries suggests that life-of-mine calculations are workable.

124. Since continuance of the method now in force is not recommended, the treatment of development costs would differ from that recommended for costs of prospecting and property examination. A line would therefore have to be drawn between "prospecting" and "development". A precedent for this exists in the United States where prospecting and development costs are also treated in different ways. There, the exploration stage ends and the development stage begins "when, in consideration of all the facts and circumstances (including the actions of the taxpayer) deposits of ore or other mineral are shown to exist in sufficient quantity and quality to reasonably justify commercial exploitation by the taxpayer". 20/ Although the exact point of time when development begins cannot be determined with certainty, there will usually be some fairly clear indication within a short time that a decision to develop a property as a mine has been taken. Clearing of the area, for example, or the placing of orders for equipment, or the commencement of shaft-sinking would usually take place before substantial development expenses had been incurred. A partner of one of the large accounting firms in the United States with considerable experience in mine accounting and taxation states that the distinction drawn between exploration and development, while "tough", can usually be worked out at the field level.

125. As pointed out above, development costs are probably at greater risk than initial costs of many other businesses. Occasionally, therefore, it can be expected that development costs will exceed revenues from the mine and there will be a resulting loss. While such loss should be equated with

operating losses of other relatively risky businesses, there should be a fair degree of freedom to recoup them. Because the treatment of business losses is dealt with in a separate study no attempt at a solution will be made here.

126. The recommendation that expenditures on fixed assets substantially consumed in the development period be included with development costs would not seem to raise administrative difficulties. When a taxpayer had included such expenditures in development costs, the natural question for an assessor to ask after the close of the development period would be: "Where are the assets now?" Under the recommended system, the question would usually be asked before the development costs had been written off.

127. Development expenditures incurred by non-mining companies and individuals are presently deductible only in accordance with regulation 1205 at a rate of up to 25 per cent per annum. In the discussion of prospecting costs it was recommended that no distinction be made between mining and non-mining companies and the considerations leading to the recommendation apply equally here. Although individuals rarely carry a mine into production, there does not seem to be a good reason why they should not compute their income in the same way as other taxpayers if the case arises. It is therefore recommended that the treatment of development expenses be the same for all taxpayers claiming to deduct them.

Revenue Aspects

128. Adoption of either of the alternatives would result in a temporary increase in revenues. Costs of mine development in Canada appear to be between 150 and 200 million dollars annually and a typical development programme might last three years. If it is assumed that one half of the annual

development expenses are deductible as incurred, revenues would increase between 38 and 50 million dollars annually for three years and by lesser amounts thereafter. This might be reduced somewhat by the recommendation concerning fixed assets.

Transitional Provisions

129. Since a development programme may take several years to complete and since development programmes presently in progress will have been based on the existing legislation, the recommended treatment of development costs should not be applied to development which commenced before amending legislation was introduced.

Summary and Specific Recommendations

130. The foregoing discussion of the general recommendation suggests that the only modification necessary is that contained in paragraph 127. The recommendation therefore stands in the terms set forth in paragraph 114 with the additional recommendation that it be made applicable to every class of taxpayer claiming to deduct development costs.

PRODUCTION

INTRODUCTION

131. When the major portion of the mineral production is obtained from workings other than those opened for the purpose of development, or when the principal activity of the mine becomes the production of developed ore as opposed to the development of additional ores for mining, it is considered to have entered the producing stage. Once this stage is reached the pattern of daily operations is to a large extent fixed and with few exceptions, if market conditions permit, the mine and mill will be operated at or near

capacity until the ore is exhausted.

132. Underground development and surface drilling will continue through this stage so as to outline the whole orebody as precisely and completely as possible and to direct the plan of development along the best path. The word "development" is used to describe both the once-and-for-all initial expenditures such as site clearing and shaft-sinking and the continuous underground work carried on simultaneously with production. The latter is sometimes designated "forward development" and in order to avoid confusion this term will be used here.

133. If successful, the operations will soon begin to generate a cash flow sufficient to permit the repayment of financing. Naturally, as extraction proceeds more equipment may be required but generally this is readily paid for out of current earnings. Occasionally additional outside financing may be required if there is a substantial increase in capacity or in costs of construction or if operations have not been as profitable as hoped for.

134. It has been pointed out earlier that the whole mining process, from prospecting to refining, can be considered as one continuous operation. This is certainly true of the producing stage. In underground mining forward development (level work and drilling) will make way for the mining; at the mine faces the orebody is shattered into pieces of convenient size; these are then processed partly underground (by crushers) and partly on the surface (by further crushing, reduction and metallurgical treatment); and the processed ore is then converted to metal by smelting or sometimes by direct reduction.

135. In open-pit mining, which is accounting for an increasingly large

proportion of all Canadian mining, there is usually a larger investment in massive machinery and a relatively smaller investment in mine construction.

ACCOUNTING

136. Accounting for production is in practice relatively simple although its simplicity may be due in part to ignoring certain important aspects of mining.

137. Each stage of the mining process usually develops its own cost ratios. Stoping, mining, underground treatment, and milling costs are expressed as costs per ton hoisted or milled. These costs are then used to determine inventory costs at the various stages of processing. Thus, all mining and treatment costs are charged to operations and an adjustment is made at the end of each period for inventories on hand. Inventories of finished products are often valued at selling prices on the ground that world markets exist for most metals produced and virtually all the effort necessary to realize the price has been spent in producing the metal. Where world market prices are subject to fluctuation and inventories would not normally be marketed immediately some discount from current prices may be appropriate. Inventory practices show some variation between companies, both as to the point at which values are first ascribed to inventories, and the methods of valuation.

138. The factor that may sometimes be ignored is the effect of forward development on ore reserves. Since ore is defined as mineralized material which may be mined at a profit, all those factors which affect costs of production and selling prices cause a constant shifting back and forth across the borderline between ore and waste. In many mining operations the increase or decrease in the value of the ore reserves during the year may be more

significant than the amount of the profit or loss recorded in the accounts. Yet, under Canadian practice no recognition is given in the accounts to valuation of ore reserves at any stage and forward development costs are usually written off as incurred. 21/

139. Usually this results in nothing worse than a shift of costs between years since the ultimate profit from working the mine is not affected. However, it is interesting to note that limitations are placed on the amount of forward development that may be charged to costs of gold mining for purposes of qualifying for aid under the Emergency Gold Mining Assistance Act, where the amount of annual grants can be affected by fluctuations in the amount of development. There would clearly be no accounting objection to deferring forward development costs that had increased developed reserves and this method is used by some Canadian companies.

140. Apart from the problems relating to ore reserves the other significant problem in mine accounting is that of writing off capital costs. Mine operations differ from those of other industrial enterprises in that the fixed assets of the latter, should their business activities be brought to a sudden end, can usually be disposed of for, perhaps, one half or more of their book value. There is always some demand for the second-hand machinery, equipment, and buildings of most businesses.

141. When a mine is exhausted, its fixed assets—mill, buildings and machinery—cannot usually be sold to realize any worthwhile amount. Each mine has its own milling and treatment problems, and plants are not interchangeable. The cost of dismantling and transportation also greatly reduces the value of an old mill, mine buildings and equipment. It will be apparent, therefore, that the depreciation of mine buildings, machinery and

equipment may properly be based on a period not exceeding the estimated life of the mine.

142. **To estimate the life of the mine raises practical difficulties.** Information about reserves varies greatly in different mines. Many large mines were developed extensively prior to the beginning of extraction operations, because the development was necessary for assurance of sufficient quantities of mineral to justify investment in costly installations of mining equipment, power plants, railroad lines and other facilities. In smaller properties no more than a few years' supply of mineral may be developed in advance of extraction. It may be unjustifiably expensive in some types of mine to develop the data necessary to estimate with reasonable accuracy the total units available. Probable and possible mineral contents may be indicated, but frequently definite assurance of additional commercial mineral is sought only as extraction progresses. In spite of the complexities involved, most mines adopt some variation of the unit-of-production method for amortizing deferred development expenses, and a few also use it for certain fixed assets.

143. **Some of the assets employed in mining, particularly mobile equipment** used in open-pit or underground mining, have a life expectancy lower than that of the mine. Separate rates of depreciation are appropriate for these assets. One corporation employing large quantities of underground equipment has adopted the sum-of-the-digits method for its own records, which produces a result rather similar to the diminishing balance method. It has been pointed out that such mining equipment is subject to heavy wear and tear and that maintenance charges mount rapidly. The corporation in question has found that the sum-of-the-digits method of depreciation combines

with increasing maintenance charges to provide roughly equal annual charges over the lifetime of the machinery. Answers to the accounting questionnaire showed that 10 to 15 per cent straight-line rates of depreciation were those most commonly used.

TAXATION

Criteria for Appropriate System and General Recommendation

144. With two possible exceptions, the normal methods of determining income from a producing mine appear suitable to provide the basis for taxation. The first possible exception would flow from the recommendation made above that development expenses be deducted from income as soon as it arises or over a maximum period and the second is that some safeguard against distorting income by the timing of forward development work may be necessary if the exempt period remains a part of the tax structure. This is discussed in Section II in connection with the incentive provisions.

145. Whether individual rates of depreciation should apply to particular assets or whether there should be broad classes of assets and what rates of depreciation are appropriate are questions dealt with in another study. If the present type of classification into broad classes is continued, the rate of amortization applicable to the mining class should clearly not exceed the life of the mine. This suggests an attractive parallel with the second alternative for development costs, under which fixed assets would be depreciated over the life of the mine but for a period not exceeding, say, eight years. This would give a minimum straight-line rate of 12-1/2 per cent (comparable to 30 per cent diminishing balance) and higher rates for mines of less than eight years. Assuming that such a system would accord with the Commission's view of depreciation generally, it would be recommended

here in conjunction with the method described in paragraph 114(a) (ii) for amortizing development costs.

146. In any event, a broad grouping of assets for each mine is entirely logical and assigning individual rates of depreciation to particular assets is not an attractive system. Current practice indicates that across-the-board rates of between 10 and 15 per cent are quite common.

147. For depreciation, therefore (the major matter of concern in the production period) the general recommendation is:

(a) that mining assets be grouped as far as possible in a single broad class to which one rate would apply and that this rate might be between 10 and 15 per cent straight-line or its equivalent under any other system, and

(b) that, if it is consistent with the Commission's general recommendations for depreciation, the rate applying to the broad class be equated with the amortization of development costs as recommended in paragraph 114 (a) (ii) above according to a formula such as: "Over a period of eight years or the expected life of the mine, whichever shall be the shorter".

Main Features and Background of the Present System in Canada

Depreciation

148. Rates of depreciation are, in general, 30 per cent per annum on the diminishing balance basis for buildings and equipment and 100 per cent for underground construction "designed for continuing use" and done after the commencement of production. However, not all mine assets are included in

these two classes. For example, roads, which do not come within the wording of class 10 of the Regulations, are depreciable at only 4 per cent, and various other assets are assigned lower rates than mine buildings and equipment generally. On the other hand, the 30 per cent class now extends to certain assets, such as smelters and refineries, which are not always dependent on the output of a particular mine or mines since concentrates can be transported over long distances for further treatment.

149. It may be noted that a "100 per cent class" is something of a contradiction in terms. If the rate of 100 per cent is really appropriate the costs are indistinguishable from current expenses and the existence of the class merely gives the taxpayer the right to deduct the expense in whatever year he chooses. If the expenditure is not truly a current expense, one should look to the period to which it properly applies and this must be more than one year. In practice amounts includible in class 12 must be shown to have a long-term purpose and it is doubtful whether 100 per cent is an appropriate rate. Such amounts would more logically be included in a general mine class or, better still, with development expenses. Class 12 also interacts with the tax-exempt period and increases its effect.

Depletion

150. Certain industrial mineral mines contained in bedded deposits are granted a true depletion allowance based on the cost of acquiring the deposit. These costs are written off over the life of the deposit. Other mines, being the majority of all mines, are permitted a deduction from net profits of 33-1/3 per cent thereof and this allowance is referred to as "percentage depletion". To some extent it compensates those mines for the inability to deduct land costs but it does so in an imprecise way.

Similar Provisions in Other Countries

151. In Australia, the amortization of fixed assets is exactly equated with that of development costs. The taxpayer has the choice of deducting his expenditures on fixed assets in the year in which they are incurred or of capitalizing them and writing them off over the life of the mine, but not exceeding twenty-five years (paragraphs 328, 329). Amortization of the costs of mining leases is also permitted over the term of the lease, provided that the vendor includes the same amount in his income (paragraph 336).

152. In South Africa, except for new and deep-level gold mines, where immediate deduction is allowed, the period of amortization is the life of the mine not exceeding thirty years, or at the rate of 27-1/2 per cent of the diminishing balance whichever gives the greater deduction (paragraphs 346 to 348).

153. In the United States a variety of methods is available at the choice of the taxpayer. A provision of some interest is that expenditures for replacing equipment which do not improve the value of the mine are deductible as current expenses, (paragraphs 364, 365).

154. No consistent pattern appears from considering the provisions of these three countries. Australia and South Africa relate depreciation to the life of the mine; the United States places more emphasis on giving every taxpayer a wide choice of methods. Australia permits an election to make an immediate deduction in all circumstances; South Africa in limited circumstances; the United States in none.

Discussion of General Recommendation

General Effect of Recommendation

Depreciation

155. **The general effect of constituting a single broad class for mining** assets would be to remove some minor distinctions which now exist. Depending on the definition of "mining", it might exclude some assets now granted a rate of 30 per cent, such as smelters and refineries.

156. **The 100 per cent class would no longer be appropriate.** Costs of the type now included in that class would either be included in the broad mining class or with development costs.

157. **If depreciation were equated with development costs, there might be** some deferment of deductions for fixed assets, but with a relatively short maximum period the deferment would not be substantial.

Depletion

158. **With a broad classification of mining assets, costs of acquiring mining** rights and other costs in connection with land would be includible and written off accordingly. This would give additional deductions to those companies which are now permitted percentage depletion.

Technical and Administrative Aspects

Depreciation

159. **A single broad class for mining assets would be administratively simple** and in that it would ignore some of the distinctions which are now made, would be simpler than the present system. A rate based on the life of the mine (with maximum period) would add some difficulty, but no extra difficulty if it were already thought to be a good criterion for deducting development costs.

160. Depreciation is presently available only in respect of assets to which the taxpayer has title. Mine townsites are often in an anomalous position since substantial expenditures may be incurred by a mining company on property belonging to a municipality. This is a particularly glaring example of an anomaly which affects many taxpayers under the present capital cost allowance provisions, and it should undoubtedly be removed.

Depletion

161. The deduction of costs of acquiring interests in land raises the question of how to treat the vendor. It has already been recommended that individual prospectors be exempt from tax on sales of mining interests and it would clearly create a loophole if the purchaser of such interests could claim deductions for them. The general rule should therefore be the same as that in Australia, that the purchaser is entitled to a deduction only where the vendor is taxable. A simple form of this rule would be to exempt individuals from tax on the sale of mining interests in all cases and to allow purchasers to deduct costs of mining interests only when purchased from corporations. This tends to support the exemption of individual grubstakers from tax, one of the alternatives considered for that class of taxpayer (paragraphs 78 to 80).

Other Matters

Royalties

162. According to departmental interpretation, royalties paid are invariably allowed as deductions in computing income. There is, however, some doubt about the correctness of this view. The Privy Council in Spooner v. M.N.R. (1933 A.C. 684) held that royalties received as part of the consideration for the sale of oil lands (in a non-trading transaction) were capital and

non-taxable. The position of the vendor was statutorily changed by the enactment of section 6(1)(j) but the purchaser's position remains unchanged and there is a strong possibility that if the Department altered its position and refused to allow the deduction of royalties on the ground that they were laid out for the acquisition of a capital asset, it would be supported by the courts. It is recommended that this judicial result be precluded by a provision specifically allowing the deduction of royalties paid, except as provided in the next paragraph.

Deduction for Provincial Mining Taxes

163. The provinces of Canada have the right to levy direct taxes on persons within the province, a direct tax being one which by its nature tends to be borne by the person on whom it is imposed and is not passed on to another. This dubious definition was first formulated by John Stuart Mill and it lives on through the medium of the British North America Act. In the Caledonian Collieries case, 22/ it was held that a tax imposed by a province on the gross revenues of a mine was essentially a tax on the product of the mine itself and therefore indirect and *ultra vires* the province. Royalties reserved by a province in its capacity of a land-owner, as when a province reserves a royalty on the sale of oil lands, are not regarded as a tax and are *intra vires*. If the mining provinces had reserved a share of mineral rights instead of granting them outright, provincial mining revenues might well have developed along the same lines as oil revenues and probably no question would have arisen about the deductibility of these levies for federal tax purposes.

164. As it is, the provincial mining tax statutes are mostly framed as taxes on profits and it is well established that such taxes are not deductible in

computing income for tax purposes. 23/ The federal Income Tax Act has allowed such taxes as deductions in computing income under special provisions since 1947, and the present provisions are contained in section 11(1)(p) and Regulation 701. (See also paragraphs 309 to 317.) Under these provisions, as they have been interpreted by the Department, some taxpayers have found that only a small portion of provincial mining taxes have been deductible from federal income. 24/

165. While the reasons for lack of deduction have many technical ramifications, the essential problem is that the formula in Regulation 701 provides for a deduction based on:

$$\frac{\text{income derived from mining operations in the province}}{\text{income in respect of which the provincial mining taxes were paid}}$$

and departmental interpretation of this Regulation is that "income" in the top of the fraction means federal income and in the bottom means income under the provincial Mining Tax Act. Since the base for taxation under the provincial mining tax acts differs substantially from income under the federal act (possibly reflecting a disguised royalty in some cases), the formula operates quite arbitrarily. No two provincial mining tax acts are the same and taxpayers in some provinces suffer more from the random working of the formula than others. The province of Quebec, for example, has a high tax base (including processing profits) and a low tax rate; British Columbia has a low tax base (the closest to the federal) and a high tax rate; Ontario has a fairly high tax base (prohibiting many deductions) and a fairly high tax rate which includes a municipal tax element, a feature peculiar to that province. The formula in Regulation 701, as it is interpreted by the Department, states, in effect, that unless the computation of income under the provincial mining tax acts is brought into line with the federal act, the deduction for provincial mining taxes is going to work in an arbitrary way.

166. It seems neither necessary nor desirable to present this sort of ultimatum to the provinces. Each has its own complex tax structure which has been built up over many years. Ontario's mining tax, for example, antedates the federal income tax by ten years. This is a matter of tax sharing where the federal and provincial governments should co-operate to arrive at a joint solution.

167. The type of solution which seems possible is for the federal government to allow a credit against federal tax for a stipulated percentage of federal income derived from mining in each province and to allow no deduction against income for provincial mining taxes. Each province could then impose tax on its mining companies using whatever combination of tax base and tax rate were best suited to the circumstances without affecting the federal credit. This is essentially the system used for provincial income taxes and it has worked well.

168. Another solution would be to allow all provincial mining taxes as deductions from federal income, producing a result similar to that for the oil companies which can deduct all of their costs of acquiring provincial leases.

169. Solutions of this sort seem to be feasible and practical. They are more practical than to require the provinces to adjust their mining tax bases to equate with the federal income tax base.

Distinction Between Development and Production

170. A line probably has to be drawn between the development and production periods in order to determine the point at which costs cease to be deferred

as development costs and begin to be deductible as current expenses. At present this line is defined in most cases by the commencement of the three-year tax-exempt period and is thus administratively simple. If the tax-exempt period remains part of the tax structure no serious problems will arise. However, if the tax-free period were withdrawn an alternative procedure would be necessary. Under the United States Code, development expenses continue throughout the life of the mine but are defined to include items which the Canadian regulations would classify under class 12 (100 per cent). Under such a system, the expenses which must be deferred are defined and there is no need to draw a time-barrier between development and production.

Revenue Aspects

171. Revenue effect of the general recommendation would be minor. There would be some deferment of deduction for expenditures now included in class 12 and if a straight-line eight-year rate were used for mining assets there would also be some deferment of expenditures now included in class 10. On the other hand, for short-term mines, there could well be an acceleration of deduction. If smelters and refineries were excluded from the class of mining assets there would be some further deferment of deduction. The proposal to allow the deduction of certain land costs would have a negligible revenue effect because the proposal is restricted to those circumstances where the vendor would include an equal amount in his income.

172. Allowing full deductions or a tax credit for provincial taxes could cost a substantial amount of revenue. It appears to be among the matters on which federal-provincial fiscal conferences are necessary.

Summary of Specific Recommendations

173. This discussion can be summarized by listing the following specific recommendations:

(a) that mining assets be grouped as far as possible in a single class to which one rate would apply (paragraph 145);

(b) that this class might well exclude assets, such as smelters and refineries in some cases, which are not linked to the life of any one mine (paragraph 148);

(c) that rate applicable to the class be equated with that for development expenses, if the recommendation is accepted that the latter be amortized over the life of the mine with a relatively short maximum period and if such a method of depreciation is consistent with the Commission's general recommendation for depreciation (paragraph 145);

(d) that expenditures now included in class 12 be treated either as current expenses or, if capitalized, be dealt with as development costs (paragraph 149);

(e) that costs of acquiring mineral properties be included in the class of mining assets (or development costs) in circumstances where the vendor includes the same amount in his income (paragraph 158);

(f) that, to extend the above recommendation, individuals be exempt in all cases on the sales of mining interests and deductions be allowed only in respect of purchases from corporations; and that this treatment apply to all types of consideration given for mining interests (paragraph 161);

(g) that full deduction or a tax credit be allowed for provincial mining taxes (paragraphs 163 to 169); and

(h) that technical anomalies concerning the deduction of royalties and the depreciation of town site costs be corrected (paragraphs 160 and 162).

PURCHASE AND SALE OF MINING PROPERTIES

INTRODUCTION

174. Mining properties are almost always business assets. The areas geologically favourable to the discovery of mineral deposits are usually unfavourable to any other activity. Mines have not been discovered underlying farmland in the same way as have oil and gas fields; they are usually found on properties which have been purchased with a specific view to searching for minerals. Usually, therefore, when a person finds himself the owner of a valuable mineral property it is because he intended to do so.

175. A mining property may pass through many hands before becoming a mine. A typical chain of events is that a prospector first stakes a property; having done some work on it, he enters into an agreement with an exploration company under which the company undertakes to develop the property and the prospector retains an interest (often 10 per cent) in it; the exploration company develops the property and interests a major mining company in financing it to the producing stage; a new company is formed in which the exploration company takes, say, a 40 per cent interest, of which 4 per cent (10 per cent of 40 per cent) goes to the prospector and in which the mining company takes 60 per cent; the new company may or may not be successful in developing a producing mine. Typically, throughout this chain of events, little or no cash changes hands between the parties and frequently no price is stipulated when the property passes from one owner to another. Each party takes or retains interests in the property by way of rights to participate in net profits from production or by way of shares in a company controlling the property.

ACCOUNTING

176. The normal treatment of transactions in business property is that the difference between the sale price and the cost are reckoned as profits of the business although such profits may be segregated as a non-recurring item or credited directly to surplus.

177. The major accounting problem that arises is to ascertain when profit has been realized if the nature of the consideration received is essentially an interest in the property sold. Where changes in legal title do not reflect any substantial change in economic interest, accounting theory will recognize that no profit has been made. The theory has crystallized, in the case of corporate mergers, in the concept of the "pooling of interests". At each stage in the typical chain of title of a mining property, it may be said that the owner of the property pools it in a joint venture with other parties having resources and know-how to further develop it. The typical chain is analogous to the formation of a series of partnerships.

178. Accounting practice for the transfers of mining properties reflects this thinking. When prospecting costs are written off, the non-cash considerations received from the sale of a property is recorded at nominal value; when they are deferred, it is recorded at an amount equal to the deferred costs. Cash consideration is usually credited against other prospecting expenses of the same year and any excess carried to surplus.

TAXATION

Criteria for Appropriate System and General Recommendation

179. Although a theoretical profit might be said to arise on the sale of mining properties when shares are received, the normal business and

accounting view is more conservative and tends to defer the recognition of profit until the consideration is converted to cash. Since cash represents one of the prime tests of taxability—capacity to pay—it is not inappropriate to base taxation on the receipt of cash in such circumstances.

180. There seems to be little doubt that those who are entitled to deduct prospecting expenses in respect of properties should be taxable on any subsequent sale of them. Earlier recommendations are to the effect that individuals should not be entitled to deduct prospecting expenses but should be exempt from tax on the proceeds of sales, and that corporations should be permitted to deduct the expenses and should be taxable on the dispositions.

181. Putting these throughts together, a fairly simple system suggests itself and is recommended:

(a) individuals would be exempt from tax on the sale of mining properties, subject to the correction of an existing defect under section 83;

(b) consideration paid (whether by individuals or corporations) for mining properties to individuals would not be deductible by the purchaser, although land costs would fundamentally be deductible;

(c) corporations would be taxable on the sale of mining properties, but only in the amount of any cash received therefor; and

(d) consideration paid by one corporation to another would be deductible by the purchaser but only in the amount of any cash paid therefor.

Main Features and Background of Present System in Canada

182. Mining properties are generally regarded as capital assets and there is not much trading in them. However, there are indications that, if it were not for the special provisions of section 83, prospectors' profits from the sale of mining properties might be included in income. (See paragraphs 229 and 230.) Transactions in mining properties by exploration companies are similar in nature, such companies developing the properties with a view to mining them or disposing of them to major mining companies.

183. Great care has been taken in the past to protect the prospector against tax on the disposition of mining interests and, while it has been suggested to the Commission that prospecting would be encouraged if prospectors and their financial backers were entitled to deduct expenses, even though taxable on income, administrative considerations favour the existing system.

184. Transfers of oil leases, in which there is much trading, are now generally taxable and costs generally deductible by the purchaser.

Similar Provisions in Other Countries

185. In Australia, if a mining lease is purchased and both parties to the transaction so elect, the purchaser is entitled to a deduction of the cost to him of the lease, spread over the remaining term of the lease and the vendor is assessable to tax in the year of receipt. (See paragraph 336.) However, if the recipient is a bona fide prospector he is required to bring into income only an amount equal to the prospecting costs which he has previously deducted in respect of the lease. (See paragraph 325.)

186. In the United States, the distinction is between taxable and tax-free exchanges. In a taxable exchange, the purchaser may include the consideration

as part of the "basis" of the property which is amortized and the vendor is taxable (at capital gain rates) on the consideration received. In a tax-free exchange, the vendor's deductible costs are merely transferred to the purchaser.

Discussion of General Recommendation

General Effect of Recommendation

187. The general effect of the recommendation is evident and does not require discussion. It is consistent with the recommendation for unrestricted transferability of prospecting costs.

Technical and Administrative Aspects

188. In one way, the proposal would be simple to administer. Cash is an easy term to understand and since only corporations would be involved in transactions affecting tax the cash would also be simple to trace. However, there would have to be a number of technical provisions in order to prevent avoidance of tax by use of shell companies acting as middlemen between prospectors and mining companies and by sales for artificially large amounts of cash which were immediately re-invested in the purchasing company.

189. Any property other than cash received in consideration for a mining interest would have a "nil basis" and if the vendor subsequently sold this property, or other property substituted for it, for cash, income would arise at that time. Since these secondary transactions would often be transactions in securities, this recommendation will have to be considered in conjunction with the recommended treatment of security transactions generally. In order to provide consistent treatment throughout the tax system, it would probably also have to be provided that cash payments by a corporation is redemption of consideration given for the purchase of a mining

interest would be deductible as part of the cost of the interest.

Revenue Aspects

190. Revenue aspects would be minor. Transactions between corporations which are now usually capital on both sides would become capital or taxable at the taxpayer's option. Since the rates on both sides would presumably be equal, there should be no gain or loss of revenue, except possibly as a matter of timing.

Summary and Specific Recommendation

191. The foregoing discussion does not suggest any modification to the general proposal set forth in paragraph 181.

NON-RESIDENT COMPANIES

INTRODUCTION

192. The great majority of Canadian mining operations are carried out by Canadian companies. Some, however, are carried out by branches of United States corporations, but so far as can be ascertained no other foreign companies are directly engaged in mining operations in Canada. United States corporations are assisted by the provisions of the United States Code relating to Western Hemisphere Trade Corporations. 25/ A Western Hemisphere Trade Corporation is a corporation incorporated in the United States and carrying on business entirely in the Western Hemisphere. It is entitled to a tax rate in United States of 14 percentage points below the normal rate. One of the participants before the Commission explained and illustrated in detail the interaction of these provisions with those of the Canadian Act and Regulations and this commentary is included as Appendix E.

CANADIAN TAXATION

General Criteria and Recommendation

193. While it is of interest to know how the provisions of the United States Code enable United States corporations to preserve the benefits of the Canadian allowances, it would be discriminatory to suggest that non-resident companies should be treated in any different manner than Canadian companies (except as part of broad governmental policy beyond the scope of this study) in respect of mining operations in Canada. No general recommendations are therefore made in this area.

Technical Matters

194. Special relief is given under section 110B (imposing a tax on branch operations in Canada) to non-resident corporations the principal business of which is mining iron ore in Canada. This relief was introduced for the benefit of Canadian shareholders of Western Hemisphere Trade Corporations but since it also extends to the non-resident shareholders, a special concession is granted to them. The relief is also anomalous in that Western Hemisphere Trade Corporations have been formed for other mining operations in Canada although presumably without Canadian shareholders to date. A more general solution to the problem should probably be sought; one suggestion would be not to give any special relief under section 110B but to allow Canadian shareholders who receive a dividend from a company subject to the tax under section 110B to apply for a rebate of tax equal to 15/85 of the dividend received. Where the company has the benefit of a tax-exempt period, this rebate would apply only after dividends had in total exceeded the surplus accumulated at the end of the period. Such suggestions can, of course, only be tentative, the whole matter of corporate distributions being the subject of a separate study.

OVERALL COMPARISON OF CANADIAN AND UNITED STATES TAXATION

195. It may be interesting at this point to compare the overall effect of Canadian and United States taxation of a mining company, both with the present Canadian system and that proposed in this study. It will also serve as a summary of this section.

SUMMARY OF TAX PROVISIONS

	Canada — Present	Canada — Suggested	United States
INDIVIDUALS			
Exploration costs	Not deductible	Not deductible	Deductible up to $100,000 a year and $400,000 in total
Losses from abandoning claims	Not deductible	Not deductible	Fully deductible in year of abandonment
Income from sale of mining rights	Exempt	Exempt	Income taxable at capital gain rates
Income from sale of shares received for mining rights	Exempt	Exempt except to a person connected with security dealing	Income taxable at capital gain rates
CORPORATIONS			
Exploration costs not exceeding existing income	If incurred in Canada, deductible by corporations with specified principal businesses	Wherever incurred, deductible by any corporation	Wherever incurred, deductible by any corporation, up to $100,000 a year and $400,000 in total; excess capitalized and either written off as an ordinary loss in year of abandonment or amortized against mine income over life of mine
Exploration costs exceeding existing income	If incurred in Canada, deductible from first income subsequently arising by corporations with specified principal businesses; and therefore lost if there is no subsequent income	Wherever incurred, either (a) deductible from first income subsequently arising (as business loss) by any corporation, or (b) transferable for non-taxable consideration to a mining corporation; and therefore effectively deductible in all circumstances	Wherever incurred, either (a) deductible from first income subsequently arising (as business loss) by any corporation, (b) capitalized and subsequently written off or amortized as above; and therefore lost if there is no subsequent income
Development costs not exceeding existing income	Immediately deductible	Deferred and deductible from income over a period of not more than eight years	Either immediately deductible or deferred and written off over life of mine
Development costs exceeding existing income	Deferred and deductible from first income subsequently arising	Deferred and deductible from income over a period of not more than eight years	Either deductible against first income subsequently arising (as business loss) or deferred and written off over life of mine
Fixed assets substantially consumed in development period	Normal depreciation—maximum 30 per cent diminishing balance	Included with development costs	Included with development costs
Depreciation—building and equipment	30 per cent per annum diminishing balance	Depends on general system adopted for depreciation; amortization in same manner as development costs preferred	Variety of methods, rates depending on life of mine
Amortization—underground development	Deductible in full in year chosen by taxpayer	Either deductible in full in year incurred or included with development costs	Either deductible in full in year incurred or written off over life of mine
Costs of acquiring mineral properties	Deductible by way of percentage depletion, if any	Deductible as part of development costs if acquired for cash	Deductible by way of depletion

REFERENCES

1/ E.K. Cork - Report to Royal Commission on Banking and Finance.

2/ "Although scientific prospecting over the past twenty years may have been expensive and disappointing for particular groups and companies, in toto it has been a resounding success." C.J. Sullivan - The Canadian Mining and Metallurgical Bulletin, March 1964, p. 279.

3/ E.K. Cork - ibid.

4/ C.R. Elliott - The Canadian Chartered Accountant - June 1950, p. 260.

5/ G.A. Kilner - The Canadian Chartered Accountant - July 1957, p. 40.

6/ As disclosed by answers to a questionnaire sent to selected mining and exploration companies.

7/ R.H.G. Smails - Accounting Principles and Practice, 5th ed., 1954, p. 407.

8/ Montgomery's Auditing, Eighth Edition, p. 294.

9/ E.g., see "The Death of the 'Profit-Earning' Process Test" Canadian Tax Journal, Vol. 5, 1957, p. 271.

10/ E.g., The Royal Trust Company v. M.N.R. 1957, DTC 1055.

11/ Siscoe Gold Mines v. M.N.R., 2 DTC 749.

12/ See paragraph 34.

13/ A phrase which the Department of National Revenue allows to be interpreted widely; see note to paragraph 242.

14/ Saskatchewan Chamber of Mines - Submission 37 and Vol. 43 of hearings.

15/ This whole discussion assumes that substantial differences will remain between the taxation of corporations and individuals.

16/ Examples of this type of activity are the Thompson property of International Nickel where property examination began in 1946 and continued for ten years before a deposit of sufficient grade was discovered, after which two further years of intensive exploration were necessary to determine whether the orebody was of sufficient size; the Ferguson Lake property of International Nickel where property examination was conducted for six years (1950-1955) without discovery of an orebody of sufficient size; the Pine Point property of Cominco which required eight years (1947-1955) of examination and was then set aside until 1960 while negotiations were held to obtain governmental support for transportation.

17/ E.K. Cork - Report to Royal Commission on Banking and Finance.

18/ E.g., see Little and MacDonald, Mining Accounting in Canada, p. 27.

19/ It being assumed here that the Commission will have a general recommendation to treat such costs in accordance with equitable methods of income determination.

20/ Regulation 1.615-1(a).

21/ J. Wilcox, Mine Accounting & Financial Administration develops a theory and method for handling forward development costs but this is not used in practice.

22/ The King v. Caledonian Collieries Limited (1928) A.C. 358.

23/ Roenisch v. M.N.R. (Ex. Ct.) 1 DTC 199.

24/ Several cases are on their way through the courts on the proper interpretation of these provisions.

25/ United States Code, Sec. 921.

SECTION II - SPECIAL ALLOWANCES

APPRAISAL OF EXISTING ALLOWANCES

INTRODUCTION

196. The special allowances to be considered are: immediate deduction, rather than deferment, of prospecting costs; immediate deduction, rather than deferment, of development costs; the tax-exempt period; the "percentage depletion" allowance; and the 30 per cent diminishing balance rate of depreciation.

197. The immediate deduction of prospecting costs may or may not be a special allowance depending on whether the deferring or expensing of such costs is considered to be the equitable method of determining income. In Section II of this study, that question was discussed and a slight preference for writing them off was expressed. This became a strong preference when discussed in relation to taxation. It may well be that some degree of concession is granted by the right of immediate deduction but if there is, it is related to the taxation structure and is not granted as an incentive. Since the immediate deduction of these costs would be recommended whether or not it had any incentive effect, there seems to be no point in questioning it again here.

198. Immediate deduction of development costs, the tax-exempt period and the depletion allowance are clearly special allowances to the mining industry. The economic effect of these provisions is dealt with in another study and the comment here will be restricted to their structural aspects.

199. Accelerated depreciation is also a special allowance but virtually every business in Canada at present receives the benefit of it. Some comments will be made on this subject but it probably has no special effect on mining.

DESCRIPTION AND HISTORICAL BACKGROUND OF PRESENT PROVISIONS

Immediate Deduction of Development Expenses

200. This feature has already been described in paragraph 115.

Tax-Exempt Period

201. An exemption from tax for the income for the first three years of commercial production from new mines has been granted to corporations since 1936. The present provisions are contained in sections 83(5) and 83(6) of the Act and Part XIX of the Regulations. While the provisions were apparently first introduced with the intention of assisting new gold mines, they have been specifically reaffirmed by successive governments as applying to all elements of the mining industry.

202. The exemption is effectively extended for more than three years by the interaction of other sections of the Act with section 83. Since the deduction of capital cost allowances is now permissive and departmental interpretation has ruled that pre-production expenses do not have to be deducted in computing the amount of exempt income, 1/ the amounts actually excluded during the three-year period considerably exceed the income for that period reported in the company's accounts. Answers to the corporate questionnaire showed that for those companies answering the question on income of the tax-exempt period, the median proportion of book income to

exempt income was 72 per cent. This would indicate that, on the average the tax-exempt period effectively exempted just over four years' income but the experience of different companies varied widely. The effect of the provisions can also be described as exempting the cash flow during the three-year period or as providing a three-year exemption plus an investment allowance equal to the amortization that would be taken in that period.

203. The exemption applies to "income derived from the operation of a mine". This extends to all the activities, including smelting and refining, of an integrated mining company.

Percentage Depletion Allowance

204. Percentage depletion allowances have been granted since the inception of the Income Tax Act. They are currently 33-1/3 per cent of net mining income, after making all other deductions for the year, for persons operating mines and 25 per cent of gross income for persons who do not operate mines but whose income is derived therefrom.

205. The concept of percentage depletion was derived in the early days of the Income Tax from study of the system in the United States. It has been restricted in both countries somewhat since it was originally introduced.

206. As with the three-year exemption, the depletion allowance applies to the income derived from all the mining and treatment activities of an integrated mining company.

Effects of the Allowances

207. Since all these allowances interact with each other in any particular mining operation, it is not easy to distinguish the effects of any one of them. In Appendices A and B, however, an attempt has been made to do this in a generalized manner. As a model situation it was assumed that a mining venture invested one half of its capital in development expenses and one half in fixed assets 2/ and that a tax rate of 50 per cent was in force. Payback periods and rates of return were then calculated for three different rates of annual cash flow (35 per cent of investment, 25 per cent of investment and 15 per cent of investment) and under each rate of cash flow for five different mine-lives. For each cash-flow/mine-life combination, the payback periods and rates of return were calculated on the assumptions that there were no allowances, and that the allowances applied singly and in all possible combinations. The tables, therefore, give a fairly complete picture of what the various allowances do to payback and rate-of-return calculations, although in examining them it must be realized that there is more than one way of computing both payback periods and rates of return and the figures are only valid in a comparative way.

208. While any selection from the tables probably introduces some sort of bias, it will help to understand them if results for three of the fifteen cash-flow/mine-life combinations are summarized on the page following.

209. These examples roughly reflect typical short-term, medium-term and long-term projects respectively. In order to analyze these figures further, the percentages by which the various combinations increase rates of return

EFFECT OF MINING ALLOWANCES ON RATES OF RETURN AND PAYBACK PERIODS

A. Annual cash flow 35% of investment - 8-year mine:

Development expenses (=½ of investment)	No depletion or exemption		Depletion No Exemption		Exemption No Depletion		Exemption and depletion	
	Rate of Return	Payback (Years)	Rate of Return	Payback (Years)	Rate of Return	Payback (Years)	Rate of Return	Payback (Years)
Deductible over life of mine 3/	17.0%	4.2	21.5%	3.6	25.0%	2.9	27.2%	2.9
Deductible from first mine income 4/	19.5	3.6	23.9	3.3	27.5	2.9	30.0	2.9
Deductible immediately from existing income	21.8	3.6	25.5	3.3	37.2	2.1	34.6	2.4

B. Annual cash flow 25% of investment - 14-year mine:

Deductible over life of mine 3/	13.2%	6.2	16.9%	5.3	18.0%	4.6	20.0%	4.3
Deductible from first mine income 4/	15.4	5.2	18.5	4.7	19.7	4.0	20.8	4.0
Deductible immediately from existing income	16.8	5.2	19.7	4.7	25.5	3.0	24.8	3.5

C. Annual cash flow 15% of investment - 20-year mine:

Deductible over life of mine 3/	7.8%	10.0	10.0%	8.5	9.7%	8.5	11.2%	7.7
Deductible from first mine income 4/	9.1	8.5	10.8	7.7	10.8	6.7	12.0	6.7
Deductible immediately from existing income	10.0	8.5	11.6	7.7	13.6	6.3	13.7	6.5

over a system having no allowances may also be calculated:

	Percentage increases in rates of return shown in examples A, B and C above by reason of the various allowances								
	Deductible over life of mine			Deductible over first mine income			Deductible from existing income		
	A	B	C	A	B	C	A	B	C
Column No.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
i) No depletion or exemption	0	0	0	15	17	17	28	28	28
ii) Depletion; no exemption	27	28	28	40	40	40	50	50	50
iii) Exemption; no depletion	47	36	24	62	49	40	120	93	74
iv) Depletion and exemption	60	52	45	77	58	54	104	88	75

210. Some of the specific effects of the various allowances may now be listed and commented on:

(a) If payback calculations alone are used, the acceleration of payback in most cases is not dramatic and not such as to thrust a marginal project into development. This is partly because payback calculations are relatively insensitive for short-term projects where the effect of the allowances is greatest.

(b) Rate of return calculations are more sensitive and show greater differences. As mathematical management becomes more widely spread, such calculations can be expected to have an increasingly greater influence on decisions.

(c) Taking each allowance alone and together with the others, a scale of allowance strengths can be developed as follows, based on rates of return:

RELATIVE EFFECTS OF MINING ALLOWANCES

	ALLOWANCE TAKEN ALONE		ALLOWANCE WITH DEPLETION		ALLOWANCE WITH EXEMPTION		WITH EXEMPTION AND DEPLETION	
	General effect on rate of return	Short vs. long-term project	General effect on rate of return	Short vs. long-term project	General effect on rate of return	Short vs. long-term project	General effect on rate of return	Short vs. long-term project
Deduction of development expenses from first mine income	FAIRLY WEAK	NEUTRAL	FAIRLY STRONG	NEUTRAL	STRONG	FAVOURS SHORT-TERM	STRONG	SOMEWHAT FAVOURS SHORT-TERM
Deduction of development expenses from existing income 5/	MODERATE	NEUTRAL	FAIRLY STRONG	NEUTRAL	STRONG TO VERY STRONG	FAVOURS SHORT-TERM	STRONG TO VERY STRONG	SOMEWHAT FAVOURS SHORT-TERM
Percentage depletion allowance	MODERATE	NEUTRAL	-	-	FAIRLY STRONG	SOMEWHAT FAVOURS SHORT-TERM	-	-
Three-year exemption	MODERATE TO FAIRLY STRONG	STRONGLY FAVOURS SHORT-TERM	FAIRLY STRONG	SOMEWHAT FAVOURS SHORT-TERM	-	-	-	-

(d) The depletion allowance does not have as great an effect as the exemption except on the very long-term projects (compare lines (ii) and (iii) in paragraph 209.

(e) If a three-year exemption is granted, the depletion allowance does not add much to it (compare lines (iii) and (iv) in paragraph 209) and may even detract from it (see columns (7) and (8) in this comparison); the last-mentioned effect arises because an immediate deduction of exploration expenses can sometimes be less valuable when they are deducted at only the 33-1/3 per cent rate.

(f) The strongest combination by far is the exemption combined with immediate deduction of development costs from existing income. Here there seems to be some sort of multiplier effect at work to account for the spectacular increases in rates of return which are produced. However this combination, because it involves deducting development expenses from existing income, favours established companies. Although the reasons for introducing the three-year exemption have never been fully discussed in public, the nature of the exemption suggests that it is to assist in the recovery of capital by delaying the imposition of tax. The deduction of development expenses from other income will, in the case of established companies, have already delayed the imposition of the tax on that other income.

SUMMARY

211. Conclusions and recommendations cannot be drawn in this area because whether or not an allowance is granted is a political or a broad economic issue. Some observations can be made, however, which will serve to summarize the foregoing discussion:

(a) of the allowances now granted, the three-year exemption is the one most likely to have an effect on decision making, particularly as management techniques become more mathematical;

(b) if a three-year exemption is given, the depletion allowance adds little to it;

(c) a spectacular increase in the rate of return occurs when the exemption is combined with immediate deduction of development expenses; however, this combination favours the established company having existing taxable income; and

(d) there is also a fairly large increase in the rate of return if the three-year exemption is combined with deduction of development expenses from the first mine income, and presumably also if development expenses were deducted over a relatively short maximum period as suggested in Section II.

SIMILAR PROVISIONS IN OTHER COUNTRIES

212. In the countries studied, the special allowances to mining were:

	Immediate Deduction of Development Costs	Exemptions	Percentage Allowances
Australia 6/	Allowed	Gold and Uranium only	20% of income for prescribed metals and minerals mined in Australia
South Africa 7/	Allowed for new and deep-level gold mines only	None	Reduced rates for low-profit gold mines only
United States 8/	Allowed	None	5% - 23% of gross income from mining limited to 50% of net income

TECHNICAL AND ADMINISTRATIVE MATTERS

UNDER PRESENT PROVISIONS

Tax-Exempt Period

213. Probably the area of greatest difficulty at present is to determine what constitutes a "mine" for purposes of obtaining the exemption. Where a new deposit is adjacent to a mine which has already qualified for the exemption, particularly if the new deposit is connected with the mine by underground workings or does not have a separate mill or separate management, the Department of National Revenue may regard it merely as an extension of the existing mine and not as a mine in itself. In this event, the three-year exemption will be denied. While the taxpayer has the right to appeal the decision of the Department, there have been few reported cases 9/ on the subject and there is much uncertainty about the meaning of the word "mine".

214. The following are some of the areas of uncertainty:

(a) If a continuous orebody is mined through more than one shaft and the underground workings are not connected, dictionary definitions suggest that each shaft and workings are separate mines; Canadian courts have not considered the question; the Department tends to treat them as a single mine, but not in all circumstances.

(b) Is a quarry a mine? An English decision suggests that it may not be 10/; Canadian courts have not considered the question; the Department's view is that it is (subject to the specific exclusion of stone quarries in section 83 (6)).

(c) Does a mine include surface workings, mill, smelter and refinery? Canadian courts have gone as far as to say that a mine means "not a portion of the earth containing mineral deposits but rather a mining concern taken as a whole, comprising mineral deposits, workings, equipment and machinery, capable of producing ore"; 11/ the Farie case 10/ suggests that a mine would not be held in England to include treatment plants; the Department's view is that it does.

(d) Is extraction by dredging and placer operations mining? The Department's view is that it is; English decisions suggest otherwise.

(e) Is extraction by underground solution and pumping mining? The Department's view is that it is not, except where statutorily defined.

215. From this it will be seen that in most cases the Department has to make important financial decisions on rather inadequate precedents and definitions. The alternatives seem to be to leave matters as they are or to attempt some king of statutory definition of a "mine". Because of the present uncertainty of the law the latter course appears to be preferable, although a definition would be extremely difficult to formulate, and some restriction of the exemption would almost certainly result. Possibly the best that could be done with statutory amendments would be to extend the definition in section 83 (6) of what is not a mine. Since a somewhat different approach is suggested below (paragraph 355 (c))these possibilities will not be considered in detail.

216. In at least two respects, there can be a shifting of substantial amounts of a corporation's revenue into the tax-exempt period. This can

be done by stockpiling ore during the pre-production period and treating it after the tax-exempt period begins, and by carrying out extensive forward development work in the pre-production period the benefit of which is obtained in the tax-exempt period. Since values are seldom ascribed to inventories of ore in stockpiles and the costs of forward development work are customarily written off as incurred, this shifting is condoned by normal accounting methods. These methods do not seem to be appropriate for taxation purposes however and the Minister should be given some power to make appropriate corrections. Mine records usually show the amount of ore stockpiled prior to commencing production and, in terms of tons of developed ore, the extent of forward development. It would seem appropriate to provide that income of the tax-exempt period should not include revenue derived from the sale or processing of ore, the costs of developing or extracting which have been included as costs deductible under section 83A. As a corollary, it should also be provided that the income of the tax-exempt period should not be reduced by costs of developing or extracting ore the revenue from which is not exempt.

Percentage Depletion

217. A question which is sometimes raised is whether exploration expenses on new properties should be deducted from the income of producing properties to determine the base for the 33-1/3 per cent allowance. It is most difficult to deal with this question since the allowance does not appear to have a raison d'être other than to reduce the rate of tax on producing mines. It therefore depends on how large an allowance is to be granted. However, it can be said that the present system of requiring exploration expenses to be deducted in arriving at the base for the allowance works

equitably between mining companies, taxing them equally on their business profit. If such expenses were not deducted, the company carrying on exploration would obtain an advantage.

218. A matter which might be called an anomaly is that the allowance ceases to apply as soon as the ore or minerals extracted therefrom pass from the ownership of the person operating the mine. Thus, if one company extracts ore and sells it to another for milling and further treatment, no allowance is permitted to the purchaser even though the vendor and purchaser are related companies. On the other hand, the word "mine" is given a very liberal interpretation where processing is carried on entirely within one company. Here profits from all products up to the prime-metal or equivalent stage are subject to the allowance. Unless the purpose of the allowance is to encourage integration (and this has never been suggested), it seems to be unduly affected by the legalities of ownership.

219. This is not a matter that has apparently caused much concern, but it points to a difference in tax treatment depending on the method in which the business is carried on. The alternatives are to extend the allowance to all taxpayers, whether or not they operate mines, who are involved in producing prime metals; leave matters as they are; or restrict the allowance (as it is restricted in the United States) essentially to the profits from mining and concentrating.

220. The first of these alternatives would probably be costly from a revenue point of view; the second is somewhat inequitable between various forms of business organization; the third appears to be reasonably sensible and United States experience shows it to be workable. It would be

recommended if the present allowance were to be retained but were thought in its present form to be too wide.

PROPOSED PROVISIONS

Tax-Exempt Period

221. If consideration of the economics of the mining industry should lead to the conclusion that the scope of the tax-exempt period ought to be reduced, one or more of the following recommendations could be adopted:

(a) limit its application to the mining and concentrating operations, in the same way as the depletion allowance is now limited in the United States; a suggestion which raises the hard but not insoluble problem of segregating the profits of an integrated operation;

(b) equate the amount exempt from tax to the normal accounting profit of the mine in the three-year period. Rather than strain a company's accounting in that period an approximately similar result could be achieved by providing that development and capital costs available for deduction from income earned after the exempt period be a proportion of the original cost determined by a formula such as $\frac{x}{x + 3}$ where x is the estimated number of further years of commercial production from the mine after the close of the tax-exempt period. In order to counter any tendency to over-estimate life expectancy at the end of the period (so as to increase the portion of costs remaining thereafter), a rule of assessment might have to be introduced permitting the Minister within (say) five years to include in the taxpayer's income an amount equal to any excessive deferment. This would be necessary only if rates of interest on tax deficiencies encouraged taxpayers to understate income prior to assessment. Such a method of "amortization" in the exempt period would have the merit of allowing development and capital costs to be deducted under any system (including a permissive one) after the close of the exempt period.

(c) Permit a mine to qualify for exemption only if constructed in combination with a new mill so as to remove the exemption from an area where its incentive effect is probably insignificant and where it has no propaganda value for foreign interests and other newcomers, namely: in the development of further deposits on existing properties to feed existing plants. There may be some instances where new mines or quarries are developed with insufficient ore reserves to warrant a new mill, but these are not usually important discoveries and, in any event, the absence of a tax-exempt period would seldom, if ever, affect the decision to develop them. "Direct shipping" grades of iron ore would be an exception to the general statement but these are now largely giving way to beneficiating grades where a concentrator and sometimes a pelletizer are constructed at the mine site. A technical advantage of this suggestion is that it would remove some of the difficulties which now exist in determining what is a new mine. It is thought that there would not be the same difficulty in determining what is a new mill. On the other hand a technical difficulty would arise in formulating an equivalent provision for industrial minerals. It is understood that the Interdepartmental Committee on Taxation developed a proposal along these lines in 1957 but it was not acted on. It is also interesting to note that the provisions in Australia are similar (see paragraphs 326 and 327).

Percentage Depletion

222. If the percentage depletion allowance were to be retained but reduced in scope, the only recommendation is that which has already been suggested as a structural matter: namely, to limit its application to the mining and concentrating operations.

REVENUE ASPECTS

223. Taxation statistics indicate that for each of the years from 1957 to 1961 the annual deductions for exempt income and the depletion allowance were each approximately $100 million (the latter including oil companies) so that at a 50 per cent tax rate the annual revenue cost for each concession was some $50 million. The withdrawal or limitation of either of these concessions would clearly produce a substantial amount of revenue.

SUMMARY

224. The recommendations in this section may be summarized as follows:

(a) if the tax-exempt period should remain in the tax system in whole or in part;

(i) some statutory assistance should be given to the definition of the word "mine" (paragraph 215),

(ii) the Minister should be given power to adjust the income of the tax-exempt period in certain respects where normal accounting methods are deficient (paragraph 216);

(b) if the allowance of a tax-exempt period should be withdrawn in part only, it might be restricted to one or more of the following (paragraph 221);

(i) the mining and concentrating operations only,

(ii) the normal accounting profit for the period, or

(iii) to a mine constructed in conjunction with a mill;

(c) if percentage depletion should be withdrawn in part, it could be by limiting its application, as in the United States, to the mining and concentrating processes.

REFERENCES

1/ See paragraph 272.

2/ Actual ratios in companies examined ranged from 10 per cent to 75 per cent in development expenses and on the average were some 40 per cent.

3/ Including tax-exempt period where applicable.

4/ After tax-exempt period where applicable.

5/ Which in all cases favours established companies having existing income taxable in Canada.

6/ See paragraphs 328 and 331 to 333.

7/ South Africa also allows a 6 per cent tax-free return on new and deep-level gold mines and a 25 per cent investment allowance for certain other mines. See paragraphs 346 to 349 and 354.

8/ See paragraphs 362 and 366 to 372.

9/ See paragraph 259 et seq. for outline of provisions and cases.

10/ Lord Provost and Magistrates of Glasgow v. Farie (1888) 13 App. Cas 657.

11/ North Bay Mica v. M.N.R. (Ex. Ct.) 55 DTC 1157 and (S.C.C.) 58 DTC 1151.

SECTION III - DESCRIPTION OF PRESENT PROVISIONS AND HISTORICAL BACKGROUND OF INCOME TAX ACT AND REGULATIONS

EXEMPTION FROM TAX OF PROSPECTORS' AND GRUBSTAKERS' GAINS

Present Provisions

225. Section 83(2) excludes from the income of a prospector amounts received or receivable by him in consideration for a mining property or interest therein acquired by him as a result of his efforts as a prospector, either alone or with others. If such consideration includes shares of a corporation, there will also be excluded from his income amounts received or receivable by him in consideration for those shares (commonly referred to as vendor's shares) when he sells them. This provision applies only to a "prospector" who is defined in section 83(1)(c) as an individual who prospects or explores for minerals (excluding petroleum and natural gas) or develops a property for minerals on behalf of himself, on behalf of himself and others, or as an employee. 1/ The term "prospector" is given a fairly broad meaning by the Department of National Revenue, including any individual actively engaged in prospecting whether full time or part time.

226. Section 83(3) excludes from the income of individuals and corporations certain amounts received from the sale of interests in mining properties acquired through the efforts of prospectors whom they have employed and from the sale of "vendors' shares" acquired in exchange for such properties, provided that the properties are acquired under one of a number of specified arrangements which must have been made with the prospector before the prospecting work began. The section does not apply if the mining property was purchased before entering into the arrangement with the prospector. In regard to the sale of vendors' shares section 83(4) provides

that the exclusion from income does not apply to a person who disposes of the shares as part of a campaign to sell the shares to the public or to shares acquired through the exercise of an option received as consideration for the sale of property.

227. Initially there does not appear to have been any stated policy of exempting prospectors and grubstakers from taxation. It seems likely that the activity was, in the early days of taxation, regarded as a form of gambling and the profits, if any, as windfalls.

History

228. The practice of the Department of National Revenue under the Income War Tax Act with regard to prospectors' and grubstakers' transactions was first described in detail in the following ruling issued in 1941:

> "The following has been agreed with the Ontario Prospectors' and Developers' Association:
>
> (1) A bona fide prospector who sells, transfers or assigns his rights to a mining prospect is not liable to income tax or excess profits tax on the consideration received, as such consideration constitutes capital.
>
> (2) For the purpose of the preceding paragraph, "bona fide prospector" includes a person who has personally carried out the whole or major part of the field work of prospecting and exploring for mineral, and includes any person, association of persons, or corporation which has contributed to the expenditure incurred in the work of prospecting, exploration and development of mining properties for the purpose of establishing a producing mine.
>
> (3) Where any person, association of persons or corporation individually or collectively with others directly contributes work, money or other assets to assist in prospecting, exploration or development, and in such prospecting or exploration he or they acquire by staking, purchase or otherwise, mining claims, shares of stock or any other assets which represent the result of prospecting, exploration or development effort conducted by him or them, and sell, transfer or dispose of such claims, shares or assets, then the proceeds of the sale, transfer or disposal of

such claims, shares or assets constitute capital and are not subject to income or excess profits tax. Such proceeds will likewise not be subject to tax in the hands of members of associations of persons or shareholders of corporations upon the winding up, or upon a reduction of capital of, the association or corporation.

"The above is subject to the following exceptions:

(4) If any association of persons or a corporation acquires a mining property or an interest therein by staking or purchase of by purchase of units or shares, and instead of bona fide prospecting or developing they are in fact conducting a business of trading therein or are conducting a campaign to sell shares or units to the public at large by advertising or otherwise under the cloak of engaging in prospecting and development, then they shall not be eligible for relief under the foregoing. Nothing in this paragraph, however, shall be taken to mean that legitimate advertising may not be used to raise funds for bona fide prospecting and development.

"It should be particularly noted that provision (4) specifically provides for the taxation of entities which are carrying on a business of trading in securities of any kind or in properties. This will include those entities which are commonly known as 'underwriters'.

"It will also be noted that capital gains can only be distributed tax free upon the winding up of, or upon a reduction of capital of, the association or corporation.

"Any losses incurred in prospecting, exploration and development, as referred to in provisions (1), (2) and (3) above, will of course also be of a capital nature, and thus not allowable as a deduction for tax purposes."

229. In 1949 and the early part of 1950 there was considerable apprehension on the part of prospectors that gains from the sale of mining interests would be considered as income and would be subject to tax. This was caused partly by the enactment of the Income Tax Act under which "business" was defined broadly to include "an adventure or concern in the nature of trade". The decision in the exchequer Court in McDonough v. M.N.R. (49 DTC 621) under which a prospector was taxed on profits from the sale of certain shares did nothing to remove this apprehension.

230. The present provisions, applicable to 1949 and subsequent years, were introduced by Mr. Abbott in the 1950 budget when he summarized the position as follows:

> "During the past year there has been considerable uncertainty in the mining industry with regard to the position of prospectors and those who are engaged in developing our mineral resources. From the early forties onward, it has been the practice to interpret the law as not subjecting to tax gains made by bona fide prospectors and developers in discovering and proving up mining properties. As the House knows, our Income Tax Act was completely rewritten, and the new act has been in force since the beginning of 1949. The new act contains no clear-cut authority for the practice which has been followed during the past decade. The position under the law of these important groups should be clarified, and we are proposing this year to introduce an amendment which should allay the fears of many who have in recent months been concerned about this matter." 2/

231. During the discussion of the amendments Mr. Abbott commented on the special treatment accorded those people who back the promotion and development of mining properties:

> "It was felt it was desirable to give statutory recognition to an administrative practice which, frankly, I thought the terms of the law scarcely justified. In this section, as it originally appeared in the bill, we had provided that a person would not be eligible for that special consideration if he were engaged in carrying on a business of dealing with the public in shares and securities. On reconsideration it did not seem fair to me that because a man was a stock broker or a bond dealer, or even if he was a mining stock broker, he should be precluded from making this type of investment, or doing this type of promotional work, just because of the fact that he might make his livelihood out of underwriting shares and selling them." 3/

232. In commenting on the difficulties foreseen in the proposed legislation Dr. McCann, then Minister of National Revenue and Minister of Mines and Technical Surveys, said that underlying the technical wording were three ideas: to exempt the real prospector who does "the dirty work"; to exempt those who take a real risk in backing the prospector; and to tax amounts where individuals or companies are merely acting as traders,

promoters or underwriters at no special risk or regard to themselves. 4/

233. In addition to the present legislation, other forms of assistance to prospectors have been considered by the government at various times. The question of direct government grubstaking has been discussed in Parliament on occasion, but rejected because of the obvious difficulties of assessing prospectors' capabilities and of dividing the proceeds of a successful venture. During World War II, provisions were introduced in the Income War Tax Act providing tax credits by way of deductions from tax for contributions and expenses made and incurred on prospecting for base metals and strategic minerals from January 1, 1943. The deductions from tax was 40 per cent of the taxpayer's contributions with a maximum deduction from tax of $5,000 and the deduction related to contributions to any one qualifying association, syndicate or mining partnership could not exceed $500. The benefits of this section terminated on December 31, 1945 and although in 1947 an attempt was made to have a similar provision reinstated, Mr. Abbott objected and voiced the view that this particular concession lent itself as much to the sale of stock in prospecting syndicates as it did to giving persons an incentive to go out and look for minerals.

EXPLORATION, PROSPECTING AND DEVELOPMENT EXPENSES

Present Provisions

234. Section 83A of the Income Tax Act and Regulation 1205 allow certain classes of taxpayers to deduct, in computing their income, the prospecting, exploration and development expenses incurred 5/ by them in searching for minerals in Canada. These expenses (commonly referred to as "preproduction expenses") would in the main be otherwise disallowed as being laid

out on account of capital. A continual broadening of the provisions of section 83A has taken place since its introduction and as a result of many annual changes it has become extremely complicated to interpret. 6/

235. The preproduction expenses which are deductible must have been incurred in searching for minerals in Canada. Deductible expenses do not include payments in respect of the purchase of or an option to acquire a property, right, licence or privilege to explore for or take minerals, or the cost of any buildings or equipment for which depreciation may be claimed. Expenses paid to persons outside of Canada may be deductible provided that the exploration activity is carried on in Canada. In general preproduction expense includes all expenditures (other than capital costs) incurred before the mine came into production in reasonable commercial quantities. Costs of temporary access and service roads are, for example, includible as expenses incurred in searching for minerals, although permanent roads are not.

236. Any preproduction expenses deductible under section 83A must be written off to the extent of income (as adjusted for tax purposes) in each taxation year. Any excess over the income (as adjusted) must be deferred to future years to be applied against income in those years. Should any deductible amount not be deducted by the taxpayer it will not be allowed as a deduction in future years. However, a new mine is not required to write off any preproduction expenses during its tax-exempt period, and such expenses can be deducted from income earned after the expiry of the three years.

237. The preproduction expenses which a taxpayer may be entitled to deduct,

and the manner in which he is required to deduct them for income, are determined by the nature of his business activity. For these purposes the following categories may be distinguished:

Category A

238. An individual or a non-specified (i.e.,not in Category D) corporation operating:

(a) a coal, precious metal or base metal mine;

(b) an industrial mineral deposit whose principal mineral is contained in a non-bedded deposit, or

(c) a deposit where the principal mineral extracted is (i) sylvite; (ii) halite extracted by underground mining and not be operating a brine well; or (iii) silica extracted from sandstone or quartzite.

239. Regulation 1205 entitles taxpayers in this category who receive income from the operation of such mines in Canada to deduct up to 25 per cent per annum of the preproduction expenses attributable to the mine incurred by the taxpayer before it commenced production in reasonable commercial quantities. The deduction is optional, and may be used to create a loss to be carried forward to subsequent years. The section does not apply to those preproduction expenses otherwise deductible under section 83A or its predecessor sections. For such taxpayers non-productive prospecting and exploration expenses are not deductible.

Category B

240. Section 83A (3a) provides that a corporation:

(a) ...whose principal business is the production or marketing of sodium chloride or potash, or

(b) whose business includes manufacturing products the manufacturing of which involves processing sodium chloride or potash,

may deduct in computing its income for a year the amounts incurred in the year to explore or drill for halite (which produces sodium chloride) or sylvite (which produces potash). This subsection is applicable to the 1960 and subsequent taxation years and does not allow any carry forward of expenses to subsequent years.

Category C

241. Non-specified corporations and individuals who have income from industrial mineral mines contained in bedded deposits may write off the related preproduction costs as part of the capital cost of the mine as described in paragraph 276 below.

Category D

242. A corporation whose principal business 7/ is:

(a) mining or exploring for minerals;

(b) production, refining, marketing, exploring or drilling for petroleum or natural gas;

(c) processing mineral ores for the purpose of recovering metals therefrom;

(d) a combination of (c) and processing metals recovered from the ores so processed; or

(e) fabricating metals; 8/

may deduct preproduction expenses as incurred to the full extent of income from any source.

243. The many changes in the application of section 83A make it necessary to discuss the provisions relating to corporations in this category in stages as follows:

Expenses Incurred After April 10, 1962

244. Under subsection (3b), the maximum amount deductible by any such corporation is the lesser of (a) the expenses incurred by the corporation after April 10, 1962 and before the end of the taxation year to the extent they were not previously deductible, or (b) the corporation's income for the year excluding non-taxable dividends and before allowances for depletion and preproduction expenses.

Expenses Incurred From January 1, 1953 to April 10, 1962

245. The deductions for expenses incurred in this period may be claimed as follows:

(a) under subsection (3), by any corporation in D(a) or (b);

(b) under subsection (8b), by any corporation in D(c) for expenses incurred from January 1, 1957;

(c) under subsection (8b) as amended in 1961, by any corporation in D(d) or (e) for expenses incurred from January 1, 1957 and deductible in their 1961 and subsequent taxation years.

The maximum amount deductible by any such corporation is the lesser of (a) the expenses incurred by the corporation in the period to the extent they were not previously deductible, or (b) the corporation's income for the year excluding non-taxable dividends and before allowances for depletion and preproduction expenses.

Expenses Incurred in the 1952 Calendar Year

246. Under subsection (2), applicable to the 1955 and subsequent taxation years, any corporation in D(a) may deduct preproduction expenses to the extent of the lesser of (a) the expenses incurred by the corporation in 1952 to the extent they were not previously deductible, or (b) the corporation's income for the year excluding non-taxable dividends and before allowances for depletion and preproduction expenses.

Expenses Incurred in Consideration for Shares or Options or Rights to Acquire Shares

247. Section 83A(7) provides that no deduction is permitted for expenses incurred in searching for minerals by a corporation if the expenses were incurred in consideration for:

(a) shares or an option to purchase shares of a corporation that owned or controlled the mineral rights;

(b) a right to purchase shares of a corporation to be formed for the purpose of acquiring or controlling the mineral rights.

248. Subsection (8), however, provides that such expenses may be deducted by a resource company (Category D(a) or (b)) if it incurred them after December 31, 1953 or by a metal processing company (i.e. Category D(c), (d) or (e)) if it incurred them after December 31, 1956. 9/

Expenses Incurred by a Joint Exploration Corporation

249. Subsection (3c), (3d) and (3e), applicable to the 1962 and subsequent taxation years, provide that certain expenses incurred by a "joint

exploration corporation" may in effect be deducted by a "shareholder corporation". The subsections enable one or more corporations (the "shareholder corporation(s)") to incorporate a separate corporation to engage in exploration (the "joint exploration corporation") and to include in their own expenses deductible under section 83A amounts contributed by them to the joint exploration corporation. Prior to the 1961 taxation year, exploration expenses incurred by a separate exploration corporation could only be deducted by it and only to the extent of its own income so that the expenses of an abortive exploration programme might not be deductible by any taxpayer.

250. A "joint exploration corporation" is one whose principal business is in Category D(a) or (b) and which has never had more than ten shareholders (other than individuals holding only directors' qualifying shares). A "shareholder corporation" is one that is a shareholder of a joint exploration corporation; whose principal business is one of those described in Category D; and which has made payments to the joint exploration corporation in respect of the expenses incurred by the joint exploration corporation.

251. Under subsections (3c) and (3d), a joint exploration corporation may elect to renounce an "agreed portion" of its deductible expenses in favour of one or more of its shareholder corporations and any amounts so renounced cease to be deductible by the joint exploration corporation and are thereafter deductible only by the shareholder corporation. The "agreed portion" is any amount agreed between the joint exploration corporation and the shareholder corporation not exceeding the amounts contributed by the shareholder corporation to the joint exploration corporation in

respect of the joint exploration corporation's exploration expenses incurred while the shareholder corporation was a shareholder, minus any amounts previously renounced in favour of that shareholder corporation.

Property Acquired by a Successor or Second Successor Corporation

252. Subsections (8a) and (8b) provide that for the 1956 and subsequent taxation years a Category D corporation (the successor corporation) which acquires all or subtantially all the property of another Category D corporation (the predecessor corporation) used by the predecessor in carrying on its business in Canada may in computing its income deduct the preproduction expenses incurred but not previously deductible for tax purposes by the predecessor. The deduction by the successor corporation is limited to the income derived during the year from the property acquired from the predecessor before deducting any allowance for depletion. To qualify for this treatment the property must have been acquired after December 31, 1954 by a Category D(a) or (b) corporation or after December 31, 1956 by any Category D corporation.

253. Subsection (8d) of section 83A extends the deductibility of a predecessor corporation's preproduction expenses from the income of a successor corporation to a "second successor corporation", that is, a corporation which has acquired all or substantially all of the property of a successor corporation used by it in carrying on its business in Canada.

254. The subsection is applicable only where both the first and second successor corporations are Category D corporations and where the acquisition by the second successor corporation is made after April 10, 1962. A deduction may be claimed under this subsection by the second successor

corporation, if it has acquired all or substantially all the property of the first successor corporation used by it in Canada, even though the first successor corporation may have retained property in other countries.

History

255. In his budget speech in 1943, Hon. J.L. Ilsley, Minister of Finance, said,

> "The government wishes to encourage the search for new base metal and strategic mineral deposits, which continue to be urgently required for war purposes. It is therefore proposed to renew the present provision of the law, enacted last year regarding amounts invested by individuals and prospecting syndicates searching for base metals and strategic minerals. Instead of renewing the corresponding provision in respect of mining companies sending out their own parties it is now proposed to allow companies engaged in the mining of metalliferous and strategic minerals to write off exploration and prospecting expenses incurred in prospecting anywhere in Canada for base metals or strategic minerals. In this case as in the case of oil, the saving in tax will be limited to 40 per cent of the expenditure." 10/

The resolution was embodied in section 8(9) of the Income War Tax Act which provided for a deduction from taxes payable in respect of the fiscal period in which the expenses were actually incurred. This provision was applicable to the period January 1, 1943 to December 31, 1945. In discussing the resolution Mr. Ilsley pointed out that it was designed to apply to existing mining companies which actually have income, but that a company incorporated in the future might gather up enough income in the course of a year or two to spend some of it in this form of activity. 11/ This tax credit was extended to apply in 1946 and 1947 to corporations who chief business was mining or exploring for minerals no matter what type of mineral was searched for during the year.

256. The Hon. D.C. Abbott in his 1947 budget speech said,

> "It is also proposed to extend for 1948 the allowances that have been made in recent years for expenditures on exploration for oil, gas and other minerals. We believe that these allowances have been important in facilitating and encouraging mineral exploration and development and that we should continue them at least for another year. We propose to change the form of these allowances from the present form of tax credit to the more normal form of a deduction from income." 12/

257. For a number of years similar budget resolutions were reintroduced each year requiring such expenses to be deducted from income in the year of expenditure. For the years 1948 to 1952 inclusive, such expenses could only be deducted when incurred by a corporation whose principal business was mining or exploring for minerals. The continued success of oil and gas exploration in Western Canada since the Leduc and Redwater discoveries in the late forties had encouraged some mining companies to undertake oil exploration programmes. Probably as a result of this trend, the principal business requirement for the years 1953 to 1955 was broadened to include corporations whose principal business was producing, refining, marketing, exploring or drilling for petroleum or natural gas. Up until 1955 this concession had been on a yearly basis, but to give some measure of security and permit companies to plan their exploration programmes it applied for three years ahead. However, for many years members of the Opposition had requested that the government incorporate these preproduction expense concessions into the Income Tax Act of leaving them subject to extension each year. In 1954, Mr. Nickle made such a recommendation and pointed out "that the special deductions referred to are designed simply to recover from income the actual costs of exploration and development which are simply normal operating expenses of the oil and mining industries, and they are not a subsidy". 13/

258. The enactment of section 83A in 1955 gave a permanent place to this

legislation. Although its initial application was to corporations whose principal business was wither mining or exploring for minerals or the production, refining, marketing, exploring or drilling for oil or natural gas, a variety of influences have contributed to the broadening of its application in subsequent years. The extension to processing companies took place in 1957. In that year Mr. Harris said: "In future any company whose business includes the conversion of ore into prime metals will be eligible to claim expenses incurred in exploring for minerals. This, I think, will be of particular advantage to steel companies in Canada having an interest in the development of their own ore supplies." 14/ Subsequent amendments have extended the section to metal fabricating and pipeline companies.

THREE-YEAR EXEMPTION

Present Provisions

259. Sections 83(5) and (6) of the Income Tax Act and Part XIX of the Regulations provide a three-year exemption from tax for income derived from new mines. They apply only to corporations.

260. Under section 83(5) and (6) income derived from the operation 15/ of a mine during the period of 36 months beginning with the day on which it commenced production in reasonable commercial quantities is excluded from a corporation's income. The term "mine" does not include an oil, gas or brine well, a sand, gravel, clay or shale pit or a stone quarry 16/ but does include a deposit of oil, shale or bituminous sand.

261. Under current assessing practice of the Department of National Revenue, reasonable commercial quantities will be determined by relating the actual amount of production to the rated capacity of mine and mill. Usually, a mine and mill are deemed to come into production in reasonable

commercial quantities at the beginning of the month following that in which production reached 60 per cent of rated milling capacity. Others factors, such as technical difficulties experienced in bringing the mine or mill into production, will also be taken into account. Before stating the date on which a mine is deemed to come into production in reasonable commercial quantities, the Department of National Revenue will normally consult with an interdepartmental committee, consisting of representatives from National Revenue, Finance, and Mines and Technical Surveys.

262. Obtaining of the exemption is subject to certain conditions which are set out in Regulation 1900. These are that the corporation must maintain separate accounting records for the mine for the period from the commencement of the mine's operation until the beginning of its tax-exempt period and for each taxation year which includes a part of the tax-exempt period; that if the corporation has only one mine it must end its taxation year immediately prior to the beginning of the tax-exempt period; that if the corporation has more than one mine it must close its books for the exempt mine at the end of the exempt period; and that the corporation must file a prescribed form (form T351) with the Minister of National Revenue, giving full information on the mine for which exemption is claimed.

263. Under departmental assessing practice a newly discovered deposit of ore is not necessarily regarded as a mine qualifying for the three-year exemption. 17/ If a new deposit is adjacent to or connected with an existing deposit it may be regarded merely as an extension of the existing deposit and if the existing deposit has already been granted a three-year exemption no further exemption will be granted for the new deposit. There

is often considerable uncertainty as to whether a particular deposit will qualify for the exemption.

264. The provisions of the Regulations referring to the keeping of accounts, closing of books and taxation years for exempt mines are more honoured in the breach than in the observance, apart from filing form T351, but this has apparently not led to any administrative difficulty. During the exempt period, preproduction expenses and capital cost allowances do not have to be deducted, but if they are claimed at all they must be applied first against the income to which they relate, even though it is exempt.

History

265. The three-year exemption was first introduced in the budget of the Hon. Charles A. Dunning on May 1, 1936. By this time Canada's mining industry was well established. In addition to many gold mines, four of the present smelters were operating and large-scale base metal mines were in production in British Columbia (Sullivan), Noranda (Horne), Sudbury Basin (Creighton and Falconbridge) and Manitoba (Flin-Flon). The price of gold had been raised to $35.00 U.S. in January 1934.

266. Budget resolution 8 in 1936 provided:

> "That any metalliferous mine that comes into production after the first day of May nineteen hundred and thirty-six and prior to the first day of January nineteen hundred and forty shall be exempt, from income tax for the first three fiscal periods following the commencement of production;
>
> The minister, under appropriate regulations, shall determine the date of commencement of production and the properties, new or old, that shall be determined as having come into production, having regard to the production of ore in reasonable commercial quantities, and shall issue a certificate accordingly."

267. There was virtually no parliamentary discussion of the provision when

it was introduced. In presenting the resolution Mr. Dunning said:

> "My next proposal relates to the metal mining industry. The contribution which this industry has made to the economic well-being and indeed to the financial integrity of the Dominion during the depression years, is well known. Great as its development has already been, a much greater future appears to lie in store. In the opinion of many, we have little more than begun to tap the varied mineral wealth of this country. Moreover, the most important branch of the industry, namely, gold mining, is in the fortunate position of producing a commodity for which the demand appears to be unlimited. In other industries production cannot be speeded up without creating oversupply and breaking the market. In the case of gold, however, overproduction seems under present conditions to be impossible and the price remains fixed at least for long periods of time. On the other hand, the industry is one in which the risks are great, especially in the initial stages. Exploration and development require expenditure of large amounts of capital over a considerable period of time. Private enterprise, therefore, can only be induced to enter the field if the prizes to be gained for the relatively few successes are attractive.
>
> "Because of these special characteristics, the industry appears to offer a unique opportunity for a constructive governmental policy designed to stimulate an expansion of mining activity with its resultant effects on employment and purchases of supplies and materials. The government therefore proposes to grant exemption from corporate income tax to any metalliferous mine coming into production between May 1, 1936, and January 1, 1940, such exemption to apply to its income for the first three years following the commencement of production."

268. In 1939 the exemption was extended to all mines coming into production before January 1, 1943. Mr. Dunning, still the Minister of Finance, stated that: "As a result of this provision, exploration and development work will be encouraged to go forward."

269. The exemption from income tax was not granted again until 1947 but meanwhile a similar exemption was granted from the excess profits tax for the profits of any company "derived from the operation of any base metal or strategic mineral mine which comes into production in the three calendar years commencing January 1, 1943." In 1945 this exemption was continued

for so long as the excess profits tax should be imposed and was extended to gold mines. When the House of Commons considered the 1945 amendments in Committee, considerable discussion of the effect of the three-year exemption for the new mines ensued. Mr. Bradette (Cochrane) stated that the exemption was ineffective for the low-grade large-scale base metal mines. Mr. Adamson, a mining engineer who sat for many years as member for York-West, stated that the exemption was considerably diluted because depreciation and preproduction write-offs had to be deducted during the exempt period.

270. In the 1946 budget it was resolved to exempt from tax income derived from the operation of a mine after January 1, 1947, during the first three complete taxation years after the mine came into production. This exemption applied to "base metal and strategic mineral mines" coming into production after 1943 and to all metalliferous and industrial mineral mines (except industrial mineral mines operating on "bedded deposits") coming into production after 1945. This resolution was embodied in section 4(x) of the Income War Tax Act. In discussion of the 1946 budget resolutions Mr. Adamson again argued that companies should not be forced to make annual write-offs for depreciation and predevelopment expenses:

> "The write-offs are at the rate of 15 per cent per annum so that when the three years are up and the income tax payments begin the predevelopment charges, depreciation and depletion are written off to the extent of 45 per cent. I am speaking more to a ruling of the Department than to an amendment in the section." 18/

271. In 1948 the Income War Tax Act was replaced by the Income Tax Act which came into force effective January 1,1949. Section 74 of the Income Tax Act replaced section 4(x) of the Income War Tax Act and provided for

the same exemption. Thereafter the exemption was extended one year at a time by annual statutory amendments until 1955 when in its present form it became a permanent feature of the Act. In his budget address of that year Mr. Harris said:

> "Our tax laws contain special incentive provisions for the oil, gas and mining industries. It has been the policy in the past few years to review these provisions each year and annually to grant an extension of them. There are certain advantages in this procedure but, on the other hand, it carries with it some uncertainty for the future. In the past few months I have been giving considerable thought to the operation of these incentives and to the importance of these two industries to the future of Canada. I believe these special tax provisions have clearly established their value in promoting expansion and I now propose to make them a permanent part of our law." 19/

272. The concession not to deduct certain expenses during the exempt period was introduced in 1947, for gold mines only, after the Canadian dollar was pegged at parity of exchange with the United States dollar. It began to be provided generally in 1949 for depreciation and in 1952 for preproduction expenses by interaction of other sections of the Act with section 83(5). This came about through the introduction of the present depreciation system in 1949 under which the deduction for capital cost allowances became permissive (so that none had to be claimed in the exempt period) and through departmental interpretation of section 83(5) in connection with the deductions under section 83A, introduced in 1952. According to this interpretation, the "income", which is exempt from tax during the three-year period does not have to be reduced by preproduction expenses under section 83A although such expenses normally have to be deducted from income to the full extent thereof. This interpretation is probably the only reasonable one because if preproduction expenses had to be deducted to the full extent of income during the three-year exempt period,

they would, in many cases, eliminate the income entirely thus negativing the exemption. However, the only alternative was to require no deduction and this is the present system.

DEPLETION ALLOWANCES TO MINES

Present Provisions

273. Section 11 (1)(a) and Regulation 1100(1)(g) permit the deduction, in computing the income of a taxpayer from mining certain industrial minerals contained in bedded deposits, of an amount based on amortizing the capital cost of the property at a rate per unit of production. This type of allowance is usually referred to as a "cost depletion" allowance.

274. Section 11(1)(b) permits the deduction in computing the income of a taxpayer of such amount "in respect of a mine" as is allowed by regulation. This section is implemented by Part XII of the Regulations, under which the deduction is calculated not with reference to the cost of the resource but as a percentage of the profits or production therefrom and is often described as a "percentage depletion" allowance. "Cost" and "percentage" allowances cannot both be claimed for the same resource.

275. The first of these allowances recognizes the fact that capital invested in an exhaustible natural resource is used up during the course of production. The second is not related to cost and can only be regarded as "depletion" in the normal sense of the word to the extent that it compensates for lack of an allowance for costs of mine properties. The Act and Regulations do not refer to this allowance as being for "depletion".

Certain Industrial Mineral Mines

Section 11(1)(a) and Regulations 1100(1)(g) and 1101(4)

276. This Regulation permits a deduction for the capital cost of acquiring industrial minerals contained in bedded deposits, except coal, and certain industrial minerals described in section 1201(1)(a). (See below.) Examples of industrial minerals contained in bedded deposits and depreciable under 1100(1)(g) are sand, clay, gravel, building stone and limestone (which may also be found in non-bedded deposits). By reason of Regulation 1104(3), effective September 12, 1962, peat bogs or deposits of peat also qualify as industrial mineral mines. The deduction is calculated in accordance with Schedule E to the Regulations and is in general determined for a given year by the formula:

$$\frac{\text{Units (e.g. tons) mines during the year}}{\text{Units initially estimated as being in the property}} \times \begin{array}{l}\text{Capital cost of}\\ \text{property minus its}\\ \text{residual value}\end{array}$$

The original estimate of units in the property will be amended if it can subsequently be shown to the satisfaction of the Minister that the reserves were in fact a different amount. The aggregate of deductions for all years cannot exceed the capital cost of the property minus its residual value. If income from such an industrial mineral mine is $100 or less, a deduction may be claimed equal to the income, in lieu of the formula deduction. If a taxpayer has more than one such industrial mine, each mine is deemed to be a separate class of property.

Coal Mines

Section 11(1)(b) and Regulation 1203

277. The allowance for a coal mine operated by a taxpayer is ten cents per ton of coal mined but no allowance may be taken while the mine is exempt

from tax under section 83(5). A lessor and lessee of a coal mine or two or more taxpayers operating a coal mine may agree to divide the ten cents per ton allowance between them.

Other Mineral Resources - Operators

Section 11(1)(b) and Regulation 1201

278. A taxpayer may deduct 33-1/3 per cent of the aggregate 20/ of his "profits" for a taxation year reasonably attributable 21/ to his operation of the following resources:

(i) an oil or gas well;

(ii) a bituminous sands deposit;

(iii) a base or precious metal mine;

(iv) a mineral deposit in respect of which the principal mineral extracted is sylvite (potash), halite (rocksalt) extracted by underground mining, silica extracted from sandstone or quartzite, or gypsum; or has been certified by the Minister of Mines and Technical Surveys to be an industrial mineral "contained in a non-bedded deposit"; examples of the latter being asbestos, feldspar, fluorspar, graphite, mica and nepheline syenite.

279. The allowance is increased in the case of gold producers, provided that the value of the gold output for the year is 70 per cent or more of the aggregate value of the output from all the "resources" operated by the taxpayer (except coal mines), to the greater of:

1. 40 per cent of the "profits" from all such resources, or
2. $4 per ounce of gold produced for the year.

In practice the latter deduction predominates, often exceeding net income for the year after all other deductions.

280. The "operator" of a resource includes any person who has an interest in the proceeds of production therefrom, under an agreement providing for a share in the profits after deducting the costs of operation. "Profits" reasonably attributable to the production of oil, gas, prime metal or industrial minerals from all resources operated by the taxpayer are, for the purposes of computing the percentage deduction, reduced by:

(i) all losses reasonably attributable to production from any resources (except coal mines) during the year;

(ii) preproduction expenses deducted in computing income for the year;

(iii) capital cost allowances claimed in the year on property used for purposes of exploration or mining;

(iv) interest deductible for the year under section 11(1)(c) on the purchase price of property used for purposes of exploration or mining; and

(v) amounts excluded from income in respect of new mines under section 83(5) of the Act.

Other Mineral Resources - Non-Operators

Section 11(1)(b) and Regulation 1202

281. A taxpayer, other than an operator, who has an interest in the proceeds from the sale or receives a rental or royalty based upon the production from a resource described in Regulation 1202 is entitled to an allowance of 25 per cent of his gross income, other than dividends, derived

from such interest.

History

282. Recognition of depletion of mineral resources for federal tax purposes was introduced in the Business Profits War Tax Act, 1916, and has been part of federal mining tax legislation ever since.

283. Originally only applicable to metalliferous mines, the application of the provision has been extended a number of times for various reasons and now applies to types of mineral operation not contemplated or foreseen in the earlier legislation. The attitude that depletion was an allowance to amortize the cost of property over the productive life of the mine is now related to the comparatively few mines which take cost depletion.

284. Sir Thomas White, Minister of Finance, in his budget speech on February 15, 1916 said that it was "inexpedient to consider for the present at least, the imposition of a direct income tax. We propose to impose taxation to the extent of one-fourth of the amount of net profits upon capital derived since the outbreak of the war in excess of this fixed rate". (7 per cent)

285. It was quickly appreciated that this tax would need to be amended for mining companies and the Minister of Finance amended the bill to provide that the extent of the exhaustion of the ore in the ground would be taken into consideration. In the budget debate Sir Thomas commented:

> "I do not know of any country in the world in which such small amounts are taken from the mining industry by way of royalty and taxation as in Canada. I do not believe that the imposition of this moderate tax is going to have the effect, amongst a community as intelligent as the mining community, of causing them to slacken their efforts in the development of that great natural resource. We go to the

> legislation of the United States; the United States is a great mineral country and yet there has been an income tax imposed not only upon the subsidiary mining companies but upon the holding companies. The maximum allowance made by the United States for exhaustion of capital is only five per cent. I think that is too small, and I shall deal with that phase a little later on".

And later:

> "I may say that mining had not escaped our attention, and for this reason, among others: We had examined carefully the American income tax legislation, in which provision is made for an allowance for exhaustion or depletion of capital not to exceed five per cent of the gross output in any one year. It did not appear to us that we should place a limit of that kind upon the amount that we should allow for exhaustion of capital. There are some mines whose average life is eight or ten years. I am speaking of metalliferous mines. Then other mines, such as coal mines, last for generations, and the same considerations, except in a general way, do not apply; that is to say, the percentage of exhaustion in a coal mine in a particular year is not so great as the amount of exhaustion in connection with metalliferous mines such as gold, silver and copper mines. We therefore deemed it improper to place any limit on the percentage which we should allow for exhaustion of the capital of a mine. In the administration of this Act it may be necessary for us in some cases to say we shall allow 10, 12, or 13 per cent; and in other cases 5, or 2 per cent. It all depends upon the character of the mine with which we are dealing".

286. Concerning the capital invested in a mine he introduced a concept similar to that referred to in the United States as "discovery depletion", when he said: "Mining companies present difficulties in ascertaining the capital invested in them, because there is no necessary connection between the nominal capital of a mining company and its real capital, which is the value of its mines. Therefore, you will find these anomalies. You will find a company incorporated some years ago, say, with a capital of $250,000 or $500,000, and you will find that the property today may be worth $5 million; that a holding company has probably been created, holding the stock in the original company, now the subsidiary company of the holding company, and that the dividends are being paid, say, at the rate of 15 or 20 per cent upon a capital of $5 million. Now, this taxation will apply, of

course, to the underlying company; but it will be necessary, in order to be perfectly fair to the mining industry, that in considering what its capital is, under the provisions of this Bill, you have regard to the amount of its fully paid up capital and to the values of its reserves, rest and accumulated property, the three together, as I have stated, representing substantially the value of the mine. In my opinion, that is absolutely fair and just, and it is the principle that would be applied to financial institutions, private individuals and firms in business. The first question is: What is the true amount of your capital? The second is: What is the true amount of your net profits? Now, relate your net profits to the true amount of your capital and you will easily be able to make the calculations called for in this measure".

287. This debate was the background for section 3(1)(a) of the <u>Income War Tax Act</u>, 1917 which permitted a deduction of:

> "such reasonable allowance as may be allowed by the Minister for depreciation, or for any expenditure of a capital nature for renewals, or for the development of a business, and the Minister, when determining the income derived from mining and from oil and gas wells, shall make an allowance for the exhaustion of the mines and wells."

288. From 1917 up to and including the 1946 taxation year, the amount of the depletion allowance was entirely at the Minister's discretion.

289. In 1928 an amendment provided that the lessor and lessee of a mine were entitled to divide the depletion allowance between them.

290. The price of gold rose from $20.67 in 1931 to $35 per ounce in 1934.

In this budget speech on March 22, 1935, Hon. E.N. Rhodes said:

"With regard to the existing regulations allowing depletion to mines,

> it is believed that several of these provisions have been unduly generous in their operation. Not only has it been pointed out that the specific rate of 50 per cent in the case of precious metal mines could fairly be reduced, but also that the granting of depletion at the present rates to both corporation and shareholder cannot well be defended.

291. The rate of depletion allowance granted to precious metal mines was reduced from 50 per cent to 33-1/3 per cent and the allowance granted to shareholders from 50 per cent to 20 per cent. These amendments came into force from the commencement of the 1934 taxation year except for those gold mining companies subject to the gold tax in which case the change was effective from the commencement of the 1935 taxation year.

292. The difficulty experienced in setting depletion rates was commented on in 1940 when Mr. Ilsley, the Minister of Finance was asked what facilities the government had for determining a fair allowance for the exhaustion of a mine. He replied: "I think I would have to admit that it is impossible to fix a rate that has a scientific basis at all. The Department establishes a flat rate for various classes of mines, oil wells and so on. Just what they base it upon I do not know, but it is considered fair under all the circumstances. I know that is a very loose way of describing the principle underlying allowances; but that is what is done, and as far as I can learn that is what is done in the United States. It is a most difficult thing to set a depletion allowance which will be exactly right. Take the gold mining industry. Theoretically the depletion allowance should be such as to provide for a return of the capital over the life of the mine. But the lives of mines differ tremendously. The average life of a mine this year is different from the average life next year, so there is practically nothing to go on. As a matter of fact, there has been a long standing debate between the gold mining industry

and the Department, not so acute in recent years but very much so up to two or three years ago, as between 50 per cent and 33-1/3 per cent for depletion. The government allows 33-1/3 per cent; the industry considers that the rate should be 50 per cent. I think 33-1/3 per cent would be too much if there were only one mine and it had a long life, but of course it would be too little for a mine that had a very short life. As a result, you simply have to do the best you can to fix a depletion allowance that strikes a considerable number of intelligent people as fair". 22/

293. In 1946 the government decided to put the Canadian dollar at parity of exchange with the U.S. dollar. This of course had a serious effect on the gold mines for it meant almost a 10 per cent reduction in the gross value of their production. At first, the government proposed to allow them the option of accepting as depletion either 33-1/3 per cent of net profits or $2 per ounce. The gold mining industry considered this insufficient and as a result the Minister of Finance proposed further legislation for the tax relief of that branch of the mining industry:

> "The Government's proposals for the industry are threefold. In the first place, the depletion allowance for gold mines will be increased from 33-1/3 per cent to 40 per cent of profits earned on and after January 1st, 1947. This will apply to mines the value of whose output is to the extent of 70 per cent or more from gold. This will be of general benefit and encouragement to the industry as a whole. By widening the margin of retainable profits, the well-established mines should be able to utilize more low-grade ore than they might otherwise feel it worthwhile to bring to the surface. This provision should operate naturally to lengthen the productive life of existing mines in the industry. To this extent, therefore it can be regarded as contributing towards future employment in the industry.
>
> "The second proposal is directed particularly towards the low-grade marginal mines where the impact of adverse conditions has been most severe. As a special relief measure in this direction it is proposed that the amount allowed as depletion for gold mines, as defined above, shall not in any case be less than $4.00 per ounce of gold produced. This new minimum allowance of $4.00 per ounce will replace the present minimum of $2.00 per ounce, and will be effective as from the date of

commencement of the existing $2.00 per ounce minimum, i.e. it will apply in respect of gold produced in fiscal periods ending after June 30th, 1946.

"This provision will have the effect, for example, of exempting completely from tax those mines whose profit margin is $4.00 per ounce or less. This minimum depletion allowance will likewise be of benefit to those mines whose profit margin is more than $4.00. As it is an alternative to the 40 per cent depletion mentioned above, it is obvious that this $4.00 minimum will be of benefit to every company whose profit margin per ounce is less than $10.00.

"The third proposal relates to new gold mines which have come or come into production on or after January 1, 1946. As the House is already aware, the law now allows a three-year exemption period for new mines. In this three-year period companies are at present expected to take into their books the appropriate write-off for depreciation and preproduction expenses. It is now proposed to relieve gold mines from this requirement. These deductions which the companies have been required to take regardless of the size of their profits may now be carried over and taken in the remainder of the ordinary period of write-off remaining after the three-year period. This provision, while somewhat technical in nature, will, I think, be recognized by the industry as a substantial addition to the value of the three-year exemption. It should give added stimulus to the search for an development of new prospects since it increases significantly the tax concession to new mines". 23/

294. Also in 1946 ministerial discretion to determine the amount of depletion was taken out of the Act and replaced by rates fixed by Order in Council. The Department of National Revenue issued two directives, No.70 and No. 222, setting out those rates applicable to the 1947 and subsequent years.

<u>No. 70 - Base and Precious Metal Mines</u>

"The depletion allowance in the case of base and precious metal mines shall be 33-1/3 per cent of the net profits from the production and sale of base and precious metals, provided that in the case of those mines where the value of the output is to the extent of 70 per cent or more from gold, the rate of depletion will be 40 per cent of the net profits from the production and sale of base and precious metals on and after January 1, 1947.

"In the case of any mine, the value of output from which is to the extent of 70 per cent or more from gold and the depletion allowance as calculated on a percentage of net profits amounts to less than $4.00 per ounce in respect of gold produced in fiscal periods ending after June 30, 1946, the amount of $4.00 per ounce in respect of such production will be allowed in lieu of the amount as calculated on the percentage basis. Such allowance will be recognized as an expense for all purposes of the Income War Tax Act.

Asbestos Mines

"The depletion allowance in the case of asbestos mines shall be 33-1/3 per cent of the net profits from the production and sale of asbestos.

Oil and Gas Wells

"The depletion allowance in respect of oil wells located west of the Province of Ontario shall be 33-1/3 per cent of the net profits from the production and sale of oil.

"The depletion allowance in respect of oil and gas wells located east of the Province of Manitoba and of gas wells located west of the Province of Ontario shall be 25 per cent of the net profits from the production and sale of oil and gas.

Coal Mines

"The general rate of depletion in the case of coal mines shall be 10 cents per ton.

General

"All of the above allowances will be granted during the continuance of production regardless of the cost of the property on which the mine or well is situated.

"Feature which should be especially noted are as follows:

(1) the $4.00 per ounce depletion allowance applies to the entire production of fiscal periods ending after June 30, 1946, and not only to production after such date.

(2) Where depletion is taken at $4.00 an ounce and a loss results, such loss can be carried back one year or forward three years as provided by Section 5(1)(p).

(3) Losses incurred in periods which are exempt from tax under the provisions of Section 89 or Section 4(x) of the Income War Tax Act shall be carried back one year or forward three years as provided by Section 5(1)(p)."

No. 222 - Industrial Mineral Mines

1. Where the industrial mineral is contained in a non-bedded deposit as certified by the Minister of Mines and Resources, the rate of depletion shall be 33-1/3 per cent of the net profit from the production and sale of the mineral and which allowance will be granted during the continuance of such production and is not limited to the capital cost of the mining property.

2. (a) Where the industrial mineral is contained in a bedded deposit, the depletion allowance shall be such as to permit the recovery of the capital cost of the mining property or right, less residual value, over the productive life of the deposit. The allowance in respect of each fiscal period will, unless the Minister otherwise determines, be determined by dividing the capital cost of the mining property or right, less residual value, by the total number of units of commercially mineable material indicated as being contained in the property or right and applying the rate per unit thus obtained to the units produced in the fiscal period under consideration. The unit rate may be adjusted from time to time if it is shown to the satisfaction of the Minister of National Revenue that the number of units of commercially mineable material in the deposit varies from the original estimate but the adjusted rate shall apply only to units mined after such rate has been established.

   (b) If the Minister is satisfied that the present owner or holder of the mining property or right directly or indirectly had or has a controlling interest in a company previously the owner or holder of the said property or right, or that the previous owner or holder (which term shall include a series of owners or holders) directly or indirectly had or has a controlling interest in the present owner or holder, or that the present owner or holder and the previous owner or holder were or are directly or indirectly subject to the same controlling interest, it shall be deemed that the capital cost was the capital cost to such previous owner or holder or the first of such previous owners or holders where more than one, and the depletion already allowed such previous owner(s) or holder(s) will be regarded as having been allowed to the present owner or holder.

"Examples of industrial minerals occurring in non-bedded deposits are asbestos, feldspar, fluorspar, graphite, mica and nepheline syenite.

"Examples of industrial minerals occurring in bedded deposits are clay, gravel, gypsum, sand, sodium sulphate and peat.

"Certain industrial minerals, such as limestone (when used for industrial purposes other than as building stone) and barite occur in either bedded or non-bedded deposits and the determination of the depletion allowance depends upon the nature of the occurrence. A complete statement of facts must be referred, by letter, to the Deputy Minister (Taxation), Ottawa, in order that the basis of depletion to be allowed may be determined.

These regulations in no way replace or alter the specific rates set out in Order in Council P.C. 1046, of 25th March, 1947, as outlined in Directive No. 70.

295. With the introduction of the <u>1948 Income Tax Act</u> applicable to the 1949 and subsequent taxation years, the depletion allowances were codified under Part XII of the Income Tax Regulations. For the 1949 and 1950 taxation years the allowances were the same as those in Directives 70 and 222 above. Two main changes were introduced in 1951 applicable to the 1951 and 1952 taxation years.

(a) Where a taxpayer operated more than one mine, depletion was based on the aggregate of the profits minus the aggregate of the losses of the taxpayer for the year reasonably attributable to the production from all mines operated by the taxpayer with separate groups for (i) the base and precious metals and (ii) industrial minerals contained in non-bedded deposits, and

(b) Where a person, other than the operator, received a rental or royalty based on the value or quantity of the production from the mine, depletion allowed was 25 per cent of the amount of such rental or royalty included in computing his income for the year.

296. In 1954 the Regulations were amended applicable to the 1953-55 taxation years and sylvite was added to the group of industrial mineral mines for which the 33-1/3 per cent deduction was permitted.

297. In 1957 a new Part XII was established applicable to the 1956 and subsequent years, and halite extracted by underground mining and not by operating a brine well was added to the industrial mineral mine category. Silica extracted from sandstone or quartzite was added applicable to the

1957 and subsequent years, and gypsum was added applicable to the 1962 and subsequent years.

DEPLETION ALLOWANCES TO SHAREHOLDERS

Present Provisions

298. Section 11(2) of the Act and Part XIII of the Regulations provide that persons receiving dividends (excluding deemed dividends) from corporations resident in Canada (other than a foreign business corporation) which have income from the production of oil, gas or minerals, except coal, may claim a deduction of a percentage of such net dividend income. The allowances are graduated according to the percentage of the paying corporation's income which is attributable to the production of oil, gas or minerals during the previous year. If 25 to 50 per cent of the corporation's income is so attributable, the allowance is 10 per cent of the dividends; if 50 to 75 per cent, the allowance is 15 per cent, and if 75 per cent and over, the allowance is 20 per cent. The calculation of the rate of allowance is somewhat involved, and as a result most corporations have to advise their shareholders at the end of each year of the rates applicable to dividends paid during the year.

History

299. Prior to 1949, shareholders' dividend depletion allowances were permitted at the Minister's discretion under the Income War Tax Act - section 5(1)(a) and its predecessors. Certain flat percentages could be deducted from the dividends received whether or not the paying company had mines in or was resident in Canada.

300. For dividends received in the 1949-57 taxation years from a corporation:

(a) carrying on business in Canada, the deduction was either 10 per cent, 15 per cent or 20 per cent of the dividend provided that the mineral profits were respectively 25 to 50 per cent, 50 to 75 per cent, or 75 to 100 per cent of the income of the paying corporation;

(b) not carrying on business in Canada, the deduction was 15 per cent of the dividend provided that the mineral profits were 50 to 100 per cent of the income of the paying corporation.

301. For dividends received in the 1958 and subsequent taxation years somewhat similar regulations have applied except that:

(a) the dividends must have been received from a corporation resident in Canada (other than a foreign business corporation),

(b) the depletion rate is based on the paying company's operations in the taxation year ending in the calendar year previous to the calendar year in which the dividend is declared.

An historical summary of the depletion rates permitted is set out in Appendix "A".

302. An interesting comment on the relationship between this allowance and the percentage deduction allowed to corporations was made by Hon. J.J.McCann, Minister of National Revenue and Minister of Mines and Technical Surveys in 1950.

> "While we are on this subject of depletion, we might as well deal with that perennial question of how much depletion should be allowed on dividends paid by mining companies working on non-bedded deposits. It has been claimed by some that having given a company a depletion allowance, any further allowance on dividends paid to the shareholders is a duplication and should be discontinued. This conclusion

is, of course, not based on sound thinking or arises from a misunderstanding of the facts. Canadian mining companies, with possibly one or two exceptions, do not separate amounts allowed as depletion from their general surplus account out of which dividends are paid. Therefore, having recognized certain amounts as capital in assessing a company,.we are simply continuing that classification in exempting a portion of the dividends paid. In the case of the one or two exceptions referred to, the depletion reserve is simply regarded as a division of the general surplus account for taxation purposes, and therefore there is actually no difference in treatment of the dividends paid by such companies.

It is true that the rate of depletion allowed on dividends is less than that allowed to the operating company. A greater allowance is made to the company because the risk is greatest while the ore is still in the ground and largely unpredictable in amount and grade. Once it has been converted into a marketable product and the proceeds available for distribution in the form of dividends the risk is proportionately reduced, and accordingly a smaller allowance on dividends is justified. As in the case of the allowance to the company, the allowance to the shareholder applies to every dividend received regardless of the amount invested. 24/

DEPRECIATION ALLOWANCES

Present Provisions

303. Section 11(1)(a) permits the deduction in computing the income of a taxpayer of such amount in respect of property as is allowed by regulation. Part XI and Schedule B of the Regulations implement this section and establish maximum rates of depreciation for various classes of assets; those of particular significance to mining enterprises are:

Class 10 (30 per cent)

(a) a building acquired for the purpose of gaining or producing income from a mine (except an office building that is not situated on the mine property and a refinery),

(b) mining machinery and equipment acquired for the purpose of gaining or producing income from a mine. This includes equipment generating or distributing electrical energy where at least 80 per cent of the output of electrical energy was used or sold for use by a mine together with a mill and/or a smelter.

Class 12 (100 per cent)

A mine shaft, main haulage way or similar underground work designed for continuing use, or any extension thereof, sunk or constructed after the mine came into production.

304. The phrase "similar underground work" appearing in the definition of Class 12 assets is not interpreted narrowly. Ventilation raises, conveyor ways, ore ways and waste passes are usually included. However, drifting and stope development do not qualify.

History

305. The deduction from taxable income of an allowance for depreciation has been permitted since the Income War Tax Act was first introduced in 1917. The amount of the allowance was at the discretion of the Minister of National Revenue until the end of the 1946 taxation year, and by regulation thereafter.

306. The practice of the Minister was to allow depreciation on buildings, plant and equipment used in mining at a rate of 15 per cent of cost per annum. Depreciation was required to be deducted in ascertaining the amount on which depletion was calculated. Current development work had to be expensed in the year the work was done. The cost of any permanent work, such as sinking shafts, etc. could, at the option of the company, either be written off in the period or capitalized and written off in equal amounts over not more than 7 years, except in unusual circumstances where a different basis had been arranged. A mine having a three-year

tax exemption was required to write off the following at 15 per cent per annum:

(a) commencing with the start of its six-month tune-up period, all expenses incurred prior thereto in the development of the mine (buildings, machinery and cost of acquiring property excepted), and

(b) cost of shafts sunk after commencement of milling operations or ore shipments.

The rate of depreciation established by the company and concurred in by the Department in respect of depreciable assets during the tax-exempt period was required to be the basis of depreciation thereafter.

307. In the 1945 budget a resolution was introduced which reinstated the three-year exemption for those gold mines coming into production after January 1, 1946. Mr. Adamson said that the regulation requiring mines to take depreciation and preproduction write-offs in their tax-exempt period vitiated the benefits sought to be given. One of the three proposals made by the Minister of Finance in 1947 for the tax relief of the gold mining industry was to relieve gold mines from this requirement. He said at the time "This provision...will be recognized by the industry as a substantial addition to the value of the three-year exemption. It should give added stimulus to the search for and development of new prospects since it increases significantly the tax concession to new mines". 25/ Regulations issued by Order in Council provided that such gold mines must in the post tax-exempt period (a) write off their preproduction expenses at 25 per cent per annum and (b) take depreciation at not less than 7-1/2 per cent and not more than 25 per cent per annum.

308. With the introduction of the Income Tax Act applicable to 1949 and subsequent taxation years, the amount of the depreciation deductions permitted to a taxpayer were prescribed in the Income Tax Regulations as set out above. Section 11(1)(a) stipulates maximum rates of "capital cost allowances" but does not require that a specific amount must be claimed in each taxation year. One result of this provision is to permit all taxpayers greater flexibility in the calculation of income for tax purposes, and it means that all mining enterprises now obtain an increased benefit because they are not required to claim depreciation in their tax-exempt period.

DEDUCTION FOR PROVINCIAL MINING TAXES

Present Provisions

309. Section 11(1)(p) and Regulation 701 provide that there may be deducted in computing the income of a taxpayer an amount which is the lesser of (1) taxes paid to a province or municipality on income from certain mining operations or (2) the proportion of such taxes that the income from mining operations in the province concerned is of the income in respect of which the taxes were so paid. The latter phrase is currently interpreted by the Department of National Revenue as meaning the tax base under the relative provincial mining tax act. The problems arising from this interpretation are dealt with in paragraph 2173 of the main report. 26/

310. The purpose of these provisions is to allow as a deduction for federal income tax purposes only the special taxes of a province or municipality in so far as they are directly attributable to mining income (and excluding income from milling, smelting, etc.).

History

311. One of the recommendations of the Royal Ontario Mining Commission was "that the total royalty paid annually by mining companies to the province under The Mining Tax Act of Ontario be allowed as a deductible item before assessment under The Dominion Income War Tax and Excess Profits Act". The Commission regarded the "royalty paid to the province for the right to mine" as an absolutely necessary expense in determining the proper cost to the ore. The Commissioners recommended a reduction in the Dominion tax burden which in their view had so largely contributed to the evident decline in the mining industry at that time. They had concluded that the distribution of total taxes was entirely disproportionate to the services rendered to the mining industry by the three main taxing authorities; the Dominion collected over 75 per cent of total taxes levied on the Ontario metal mining industry, yet it was the municipalities who supplied the essential services to and depended on the success of the mines, and it was the province which owned the mineral resources and contributed largely to their development and administration.

312. The Dominion-Provincial Conference on Reconstruction was held in 1945. One of the Dominion Government's proposals at that time was "to reserve to itself, temporarily, exclusive jurisdiction over taxes on income, with the exception of taxes on profits from mining and logging operations because they are closely bound up with each provincial government's management of and expenditure on its forest and mineral resources. These charges are recognized costs of operation and as such can be deducted from taxable income for Dominion tax purposes". 27/

313. The first enactment of a provision recognizing such a deduction was

section 5(1)(w) of the Income War Tax Act, applicable to the 1947 and subsequent taxation years. When this paragraph was being introduced, the question arose as to whether there was any conflict between this new paragraph and section 6(1)(o). Mr. Abbott, Acting Minister of Finance, said:

> "Under the first section, Provincial income tax on that particular kind of income in the Province, which today ordinarily is not allowed, will in future be allowed, and royalties and rentals on natural resources which have always been allowed will continue to be allowed under paragraph (w)... In the past Provincial income tax was not allowed as a deduction in the case of logging and mining companies. In the future it will be, and rentals and royalties always were. That is preserved". 28/

314. In 1947 the paragraph read:

(w) "such amount as the Governor in Council may, by regulation, allow for amounts paid in respect of taxes imposed on the income, or any part thereof, by the Government of a Province by way of tax on income derived from mining operations or income derived from logging operations".

315. In 1948 the paragraph was made applicable to the 1947 and 1948 taxation years and enacted as:

(w) "such amount as the Governor in Council may, by regulation, allow in respect of taxes on income for the year from mining or logging operations".

316. The change in paragraph (w) effected by the 1948 legislation confirmed that the taxes on income from mining and logging were deductible on the accrual basis rather than as paid and to assure taxpayers that a deduction would be allowed for municipal as well as provincial taxes. These changes resulted from the Dominion-Provincial Agreements and the regulations were intended to implement these arrangements. 29/

317. With the introduction of the 1948 Income Tax Act, regulations for the method of determining the amount of the deduction were established by

Order in Council. After the expiry of the 1952-1956 tax-sharing arrangements the working of these regulations resulted in less than a full deduction for provincial mining taxes, but this does not appear to be the result of any published policy decision. At a recent Federal-Provincial Conference, the Premier of Ontario again found it necessary to propose that deduction of the full amount of any provincial taxation imposed be allowed in computing taxable income for federal purposes. In his speech he pointed out that "A paradox of Federal-Provincial fiscal relations is that the natural resources of the nation, which are the responsibility of the provinces and involve them in large expenditures and obligations should yield to them such a small revenue". 30/ It has been stated that of the taxes paid by the natural resource industries (logging and mining) the federal government received 60 per cent and the provincial governments only 40 per cent.

REFERENCES

1/ The provisions of section 83 were held to relate to the common instance where a prospector, operating free lance, discovers a property that can be recorded in his own name and then disposes of the claim to a purchaser. In Batten v. M.N.R. (I.T.A.B.) 56 DTC 351 the taxpayer was held not to be a prospector as defined because he was an employee of a mining company receiving regular salary plus a percentage of the company's profits and his exploration discoveries were the property of the company. He had no vested interest in any mining property acquired.

2/ House of Commons Debates, March 28, 1950.

3/ House of Commons Debates, May 18, 1950.

4/ Address to the Canadian Institute of Mining and Metallurgy, April 18, 1950.

5/ The words "expenses incurred by the taxpayer" were considered to have their natural and ordinary meaning of expenses either paid out by the taxpayer or which he has become liable to pay. Pickle Crow Gold Mines Ltd. v. M.N.R. (Ex.Ct.) 55 DTC 1001.

6/ "This encompassing enactment despite - or perhaps on account of - its pretensions at exhaustiveness, resolves itself into another statutory Noah's Ark, corralling together a menagerie of conjectures, deductions hinted at or refused and criss-cross references to other sections, inevitably jeopardizing the task of making 'head or tail' of such a jumble." Hargal Oils Limited v. M.N.R. (Ex.Ct.) 62 DTC 1336.

7/ It was held that a corporation's chief business is a question of fact to be determined by an examination and comparison of all the facts concerning each of the various types of business in which the company is engaged. American Metal Co. of Canada Limited v. M.N.R. (Ex.Ct.) 52 DTC 1180.

8/ "Fabricating metals" is given a broad interpretation by the Department of National Revenue. It includes not only the manufacturing of metals and alloys but the manufacturing of metals into goods of any kind.

9/ A mining company was allowed the deduction of an amount spent on the development of another company's property when it was shown that under the agreement between the two companies the amount was actually spent by the company claiming the deduction. No. 663 v. M.N.R. (T.A.B.) 59 DTC 571.

10/ House of Commons Debates, March 2, 1943.

11/ House of Commons Debates, April 14, 1943.

12/ House of Commons Debates, April 29, 1947.

13/ House of Commons Debates, May 18, 1954.

14/ House of Commons Debates, March 14, 1957.

15/ It has been held that the mine from which the income is derived does not have to be operated by the taxpayer; a royalty received by X Company in respect of production from the mine of Y Company was excluded from the income of X Company during the mine's tax-exempt period because it held to be "derived" therefrom. M.N.R. v. Hollinger North Shore Exploration Company Limited (S.C.C.) 63 DTC 1031, affirming (Ex.Ct.) 60 DTC 1077. A fee paid to a contractor at a rate per ton of coal extracted from an open-pit coal mine has also been accepted by the Department as being "derived" from the operation of a mine.

16/ The distinction between a mine and a stone quarry was considered in Heavy Rock Mines v. M.N.R. (T.A.B.) 62 DTC 294. The extraction of ilmenite ore for use as ballast in railway construction was held to be the operation of a mine, considerable emphasis being placed on the designation of the property as a "mine" for provincial purposes.

17/ The meaning of the word "mine" was examined at length in North Bay Mica Co. Ltd. v. M.N.R. (Ex.Ct.) 55 DTC 1157 and (S.C.C.) 58 DTC 1151. "Mine was taken to mean not "a portion of the earth containing mineral deposits" but rather "a mining concern taken as a whole, comprising mineral deposits, workings, equipment and machinery, capable of producing ore". Accordingly, if operations on a property cease for an interval such that it loses this character, it may then cease to be a mine and be a new mine when re-opened.

18/ House of Commons Debates, July 30, 1946.

19/ House of Commons Debates, April 5, 1955.

20/ In calculating depletion allowance the appellant (operating two base-metal mines and one gold mine) was required to aggregate profits and losses from all mines. The profits from a tax-exempt mine may not be added to the aggregate for depletion purposes. Sheep Creek Gold Mines Ltd. v. M.N.R. (I.T.A.B.) 56 DTC 162.

21/ "Profits reasonably attributable" to the production of a mine were held to include amounts added to the taxpayer's income by way of depreciation recapture. Powell Rouyn Gold Mines Ltd. v. M.N.R. (T.A.B.) 59 DTC 401.

22/ House of Commons Debates, July 22, 1940.

23/ House of Commons Debates, March 4, 1947.

24/ Excerpt of an Address to the Canadian Institute of Mining and Metallurgy, April 18, 1950.

25/ House of Commons Debates, March 4, 1947.

26/ Report of the Royal Ontario Mining Commission, 1944.

27/ Proposals of the Government of Canada, Dominion-Provincial Conference on Reconstruction, August 1945.

28/ House of Commons Debates, August 13, 1946

29/ Clause 8, Dominion-Provincial Agreement, 1947.

30/ Proceedings of the Federal-Provincial Conference, 1955.

SECTION IV - TAX SYSTEMS OF OTHER COUNTRIES AS THEY APPLY TO MINING

INCOME TAX FOR THE MINING INDUSTRY IN AUSTRALIA

INTRODUCTION

318. Although the various states have legal power to impose income taxes, the only income taxes presently imposed are those of the Commonwealth Parliament. The amount of income subject to income tax—that is, the taxable income—is determined in accordance with the provisions of the Income Tax and Social Services Contribution Assessment Act 1936-1963 as amended. The taxable income of a business is the excess of gross ("assessable") income (other than capital receipts and exempt income) over allowable deductions. It is understood that these provisions are strictly construed and are seldom the subject of extra-statutory concessions.

319. Special tax concessions have been granted for the purpose of encouraging mining in Australia and in New Guinea. These concessions take the form of exemptions of all or part of the income from the mining activity; deductions for capital expenditure which would otherwise not be allowed or would be required to be spread over a longer period of time; or deductions for share capital paid to companies mining for certain minerals.

PROSPECTING; PROPERTY EXAMINATION; DEVELOPMENT

Deduction of Expenses

320. Exploration and prospecting expenditures incurred by a person during the year are allowable as a deduction up to the amount of net income derived by him during that year from carrying on any mining business and from activities directly or indirectly associated with that business. If the

exploration and prospecting expenditure exceeds the net mining income, the amount of the excess is carried forward as residual capital expenditure deductible over the estimated life of the mine as discussed below. One effect of this limitation is to permit exploration and prospecting expenses to be deducted only from mining income, although such income does not have to be derived from the property in respect of which the exploration expenses were incurred. Thus, if the exploration is successful or if the taxpayer has sufficient income from other mining activities, the full amount of the expenditure for exploration will ultimately be deductible; but if the exploration is unsuccessful and the taxpayer has insufficient income from other mining operations, the deduction may be lost.

Sale of Mining Rights by Prospectors

321. When a prospector has located a deposit of ore and has rights to mine in the particular area, he may decide to bring his venture to fruition by disposing of those rights. Bona fide prospectors who dispose of rights to mine in Australia or in New Guinea for gold or for one of the thirty-nine metals and minerals prescribed by regulation are specifically exempted from including such amounts in assessable income.

322. For the purposes of the exemption a person qualifies as a bona fide prospector if he has personally carried out the whole or a major part of the field work of prospecting for gold or one or more of the prescribed metals or minerals in the area concerned. Also regarded as bona fide prospectors are persons who have contributed to the cost of prospecting work and corporations which have themselves carried out the whole or the major part of such work.

323. Bona fide prospectors, whether or not they reside in Australia, are

entitled to the exemption from tax of the proceeds of sale of mining rights unless one of the parties to the transaction has the power to control the activities of the other party or unless a third party has power to control both the contracting parties. For example, the exemption does not extend to amounts paid to a prospector by a company in which he has a controlling interest.

324. The exemption is modified where a prospector has been entitled to deductions for expenditure on exploration or prospecting in the area in respect of which the mining rights have been sold. In these cases, the amount of income otherwise exempt is reduced by the amount of those deductions attributable to the particular area for which the rights have been sold, transferred or assigned.

Deduction of Development Expenses

325. See PRODUCTION - Depreciation.

PRODUCTION

What are "Mining Operations"?

326. Certain provisions of the Australian Act (e.g., deductions for mine development) apply only where a person carries on "mining operations". A comprehensive definition of "mining operations" is not attempted but it is clear that the term is not restricted to subterranean workings. Dredging, sluicing and alluvial workings generally qualify as mining operations, as do the winning of coal by open-cut methods but the extraction of stone by open-cut methods has been held to be quarrying and not mining.

327. The treatment of ore by the person who mines it qualifies as a mining operation where the treatment takes place on the mining property as part of

the business activities associated with the mine. Treatment processes carried out after the ore has been transported from the locality of the mining property do not generally fall within the scope of mining operations. The treatment by one person of ore mined by another does not qualify as a mining operation.

Depreciation and Amortization

328. The capital cost of plant and equipment necessary to the carrying on of mining operations or to the development of a mining property and the capital cost of certain housing and welfare facilities provided for the benefit of mining employees may be written off at a level rate over the life of the mine or over a period of twenty-five years, whichever is less. The life of the mine is determined as of the end of each year and the write-off for the year is calculated accordingly. At the taxpayer's election, all or any part of development costs and the cost of any unit or units of plant and equipment may be deducted from assessable income of the year in which the expenditure is incurred. Alternatively, the taxpayer may elect to depreciate any particular unit of plant and equipment in accordance with the general depreciation provisions.

329. Amounts specifically appropriated out of the income of a particular year for capital expenditure during the succeeding year on plant or on development of a mining property are, at the taxpayer's election, deductible from income of the first-mentioned year. The appropriation need not be made during the year as long as it is designated as made from income of that year. The amount deductible is limited to the amount considered by the Commissioner as likely to be expended for the prescribed purpose by the end of the year following that in which the appropriated income was earned. An amount

allowed or allowable as a deduction which is not expended for the prescribed purpose by the end of the succeeding year is includible in assessable income of that year. A further permissible election may be made by the taxpayer with regard to expenditure on housing and welfare, resulting in such expenditure being deductible equally over five years beginning with the year the expense was incurred.

330. In the absence of the exercise by the taxpayer of his various rights of election as mentioned above, the deduction in any year for development and mining plant expenditure may not exceed the amount of taxable income (before making such deductions).

Depletion

331. No depletion allowances are granted.

Exempt Income

332. Income (other than income from the production, treatment or sale of pyrites) derived from the working of a mining property in Australia or New Guinea principally for the purpose of obtaining gold is exempt from income tax. This exemption extends to profits from mining principally for gold and copper if at least 40 per cent of the value of the total output is from gold.

333. Income from mining uranium bearing ore in Australia or New Guinea and from the treatment of that ore by the mine operator is exempt from tax. It is not necessary that the treatment activity should take place on the mining property.

334. There is also an exemption from tax of 20 per cent of the taxable income derived from the production or sale of certain prescribed metals and

minerals mined in Australia or New Guinea.

Shareholders' Dividends

335. Dividends paid by a mining company exclusively from its net exempt income are exempt in the hands of the shareholders. In general, if the company has itself received a dividend which was paid out of exempt mining profits, a dividend paid in turn by the recipient company out of such exempt dividends is also exempt to its shareholders. However, the exempt profits lose this exempt character when passed through two or more shareholding companies.

PURCHASE AND SALE OF MINING PROPERTIES

336. When a mine or mining rights are purchased, the cost thereof cannot be treated as a cost of the mineral subsequently produced. But if a mining lease is purchased and both parties to the transaction so elect, the purchaser is entitled to a deduction of the cost to him of the lease, spread over the remaining term of the lease, and the vendor will be assessable to tax in the year of receipt on the amount received by him unless he is a bona fide prospector (see paragraphs 322 and 326 above).

INCOME TAX FOR THE MINING INDUSTRY IN SOUTH AFRICA

INTRODUCTION

337. The amount of income subject to income tax—that is, the taxable income—is determined in accordance with the provisions of the Income Tax Act, 1962, as amended. The taxable income of a business is briefly: gross income (not being income of a capital nature) less all amounts exempted from tax and all deductions (mainly the expenditure incurred in the production of the income) authorized by the Act.

PROSPECTING; PROPERTY EXAMINATION; DEVELOPMENT

Deduction of Prospecting Expenses

338. Prospecting costs can be deducted by a producing mine from mining income as and when incurred; with this exception, the costs of prospecting, mining claims and options are not deductible. In the budget of March 1963, a new provision was introduced permitting financial and prospecting companies to deduct all exploration and prospecting expenditures in the year incurred.

Deduction of Development Expenses

339. See PRODUCTION - Depreciation. Mine development before production is included in the definition of, and may be deducted only as, capital expenditure.

PRODUCTION

What are "Mining Operations"?

340. Mining operations and mining are defined to include every method or process by which any mineral is won from the soil or from any substance or constituent thereof. Certain special definitions have been introduced into the Act because of the geological peculiarities of gold mining. Thus, mining for gold is defined to include mining for uranium because uranium is extracted from the gold bearing ores. Special provisions and definitions have also been included for deep-level gold mines where the principal object is the mining of gold bearing ore at depths exceeding 7,500 feet from the surface.

Rates of Tax

Gold Mines

341. The taxable income derived by companies from mining for gold is taxed

at a formula rate, and the taxable income from other sources is taxed at the ordinary company rate of 30 per cent. The formula rate is determined according to the formula Y = 60 - 360/X in which Y represents the tax rate expressed as a percentage and X the ratio expressed as a percentage which the taxable income from gold mining bears to the gross revenue from gold. The effect of this formula is that any mine where the ratio of taxable income from gold to gross revenue from gold is 6 per cent or less is not taxable in respect of that taxable income and that where this ratio is between 6 and 12 per cent, the rate is reduced below the normal rate of 30 per cent. In addition, if the taxable income from gold is less than R140,000 ($210,000), the rate of tax is again reduced by 1/6 per $25,000 of taxable income below R140,000 with a maximum reduction of 2/3 of the rate.

Diamond Mines

342. The taxable income derived from diamond mining is subject to tax at the rate of 45 per cent and the taxable income from other sources at the ordinary company rate of 30 per cent.

Other

343. Mining companies other than gold or diamond are taxed at a rate of 30 per cent on taxable income derived from mining operations.

344. There is also an undistributed profits tax for which only private companies are liable but included in the companies that are exempt are mining companies and companies 75 per cent owned by mining companies.

Depreciation

345. Persons who derive income from mining operations are entitled to recover capital expenditure through means of a special redemption allowance.

346. Capital expenditure means:

(a) expenditure on shaft-sinking and equipment, including any single renewal or replacement of equipment which together with the accessories thereto exceeds R40,000, and

(b) expenditure on prospecting, development, general administration and management (including any interest and other charges on loans utilized for mining purposes) prior to the commencement of production or during any period of non-production.

This expenditure is recoverable, as and when incurred, by a "new" gold mine (lease granted after February 28, 1946) and by a deep level gold mine from income from producing gold. For other mines the recovery is as follows:

(a) preproduction expenditure; over the lesser of the life of the mine or ten years;

(b) unredeemed balance of capital expenditure at beginning of year and expenditure incurred during the year; over the life of the mine or at the rate of 27-1/2 per cent whichever is the greater deduction.

For diamond mines in the first year of production, the total capital expenditure to the end of that year is allowed as a deduction. Thereafter, the allowance is the expenditure incurred during the year.

347. New deep level (7,500 feet) gold mines and gold mines established after March 20, 1963 are entitled to add 5 per cent (6 per cent for mines commenced after March 20, 1963) each year to the amount of capital expenditure (excluding interest and other charges on loans); other deep level mines can charge 5 per cent (6 per cent for mines commenced after March 20, 1963) for

ten years from the date when recognized as a deep level mine.

348. The life of a mine is determined by the government mining engineer, subject to objection and appeal, but with a maximum life of thirty years.

349. There is also a special deduction related to the degree to which the product of a mine is processed in the Republic. Thus, income derived from the working of any mine other than a copper mine in the district of Namaqualand or the district of Letaba, or a gold or diamond mine, may be reduced by a deduction of 25 per cent of the capital expenditure incurred in respect of such mine on or after March 15, 1961 or such percentage of the said capital expenditure in excess of 25 per cent (but not exceeding 100 per cent) as may be directed by the Minister of Finance. This deduction does not reduce the capital expenditures which can be written off according to the rules discussed above.

350. There are also provisions for recapturing capital expenditures previously written off if assets are disposed of for a price exceeding their written down amount.

Depletion

351. No deduction is allowed for depletion of natural resources.

Exempt Income

352. Income from new mines is not exempt from tax.

Shareholders' Dividends

353. In general, dividends from companies in the Republic are not subject to normal tax in the hands of a recipient company, on the theory that they have been paid out of profits already subject to normal tax. Individuals

include in their income 2/3 of dividends if taxable income plus dividends exceeds R4,600. Below that figure the percentage of dividends included decreases uniformly to zero at the level of R2,600. Dividends from mining companies are not accorded any special exemptions in the hands of shareholders.

Special Reliefs

354. The Government grants relief by way of subsidy to assist marginal gold mines with the pumping of water. Loans at 5 per cent are also granted to approved mines to meet approved capital expenditure and to cover working losses of up to 10 per cent of revenue. These loans are repayable only out of profits and in the case of a mine ceasing operations are written off.

INCOME TAX FOR THE MINING INDUSTRY IN THE UNITED STATES OF AMERICA

INTRODUCTION

355. Tax is imposed by the United States Internal Revenue Code and Regulations. From its commencement this legislation has granted substantial concessions to natural resource enterprises and in this respect it has undoubtedly had a strong influence on similar legislation in Canada.

PROSPECTING; PROPERTY EXAMINATION; DEVELOPMENT

Distinction Between Exploration and Development Costs

356. The Internal Revenue Code distinguishes between exploration costs and development costs. The exploration stage ends and the development stage begins "when, in consideration of all the facts and circumstances (including the actions of the taxpayer), deposits of ore or other mineral are shown to exist in sufficient quantity and quality to reasonably justify commercial exploitation by the taxpayer" (Regulation 1,615-1 (a)).

Deduction of Exploration Expenses

357. Exploration, including prospecting, expenses are not deductible as current operating expenses except as specifically allowed. The basic position is set out in Treasury Ruling I.T. 4006, 1950 C.B. 148, which, although couched in terms more applicable to oil and gas exploration, is understood to represent the basic position of the Treasury towards mining exploration. The syllabus states:

> "Geological and geophysical exploration costs constitute capital expenditures and are not deductible as business expenses under... the Internal Revenue Code. If a property is acquired or retained on the basis of geological and/or geophysical data obtained from an exploration project, the cost of the project should be capitalized as a part of the cost of the property acquired or retained. If no property is acquired or retained on the basis of such data, the cost of the project is deductible as a loss under section 23(e) or (f) of the Code."

358. Exploration costs include depreciation of equipment used in exploration projects (Regulation 1.615-1 (b) (2)).

359. If the property examination proves an area to be worthless the related prospecting and property examination costs are deductible as an ordinary business loss in the year in which the area is abandoned. It is understood that by far the greatest amount of exploration costs are deducted under this provision.

360. If, as a result of the property examination, the area is retained the related prospecting and property examination costs continue to be capitalized. These capitalized costs are recoverable either through depletion, if the property becomes productive, or as an ordinary loss if the property subsequently becomes worthless. Worthlessness is apparently determined on the basis of practical business judgment rather than by any formal rules.

361. The provisions described above were apparently regarded as restricting the activities of individuals and smaller corporations and in the Revenue Act of 1951 and subsequent legislation, provision was made for accelerated deductions. An individual or corporation may now choose to deduct as current expenses under section 615(a) of the Code "expenditures paid or incurred...for the purpose of ascertaining the existence, location, extent or quality of any deposit of ore or other mineral, and paid or incurred before the development stage of the mine or deposit" to the extent of $100,000 in any one year and of $400,000 in total. These amounts may either be deducted in the year incurred or may be deferred and deducted on a unit-of-production basis from income derived from the property explored. If the latter alternative is chosen, the amounts so deducted are (unlike the amortization of capitalized costs) not regarded as depletion but are taken into account in order to determine the "50 per cent of income" limitation for the depletion allowance (see paragraph 366 below).

Deduction of Development Expenses

362. Preproduction development expenses, which include the cost of shafts, tunnels, and haulage ways necessary to make the mineral accessible, are deductible as current operating costs (section 616(a)), or the taxpayer may elect each year to capitalize or defer all such expenses for each mine or deposit. If such development expenses are capitalized they are deductible ratably from the income of the mine as depletion and if they are deferred they are deductible separately and such deductions reduce income for purposes of computing the depletion allowance. Depreciation of equipment used in the preproduction period is includible with these expenses.

Transfer of Capitalized or Deferred Expenses

363. In a tax-free exchange, (i.e., statutory amalgamation, exchange of

shares for shares, or exchange of assets for shares) the right of the transferor to deduct capitalized and deferred expenses is passed to the transferee. In a taxable exchange, the consideration is valued and becomes income of the transferor (usually subject to capital gains treatment) and basis of property to the transferee.

PRODUCTION

Depreciation

364. Many alternative methods of depreciation are available, as with United States businesses generally. Of particular application to mining is the unit of production method, which is applied on the same basis as that described below in connection with cost depletion.

365. It is also provided that expenditures for equipment and replacements thereof necessary to maintain the normal output "solely because of the recession of the working faces of the mine" and which do not increase the value of the mine shall be deductible as current expenses (Regulation 1.612-2).

Depletion

366. The depletion allowance is the principal matter of interest in the computation of income from producing properties. The general rule is that the owner of an economic interest in a mineral property is entitled to an annual allowance equal to the greater of:

(a) amortization for the year of capitalized acquisition, exploration and development costs (not including deferred costs) related to the property, on a unit-of-production basis, or

(b) a stipulated percentage (varying between 5 and 23 per cent depending on the type of mineral) of gross income from the property, not exceeding 50 per cent of the net income therefrom.

367. An economic interest is considered to exist when there is acquired "by investment" any interest in mineral in place by which income and a return of capital are to be derived from extraction of the mineral (Regulation 1.611-1(b)). The essential characteristics of an economic interest are summarized in Rev. Rul. 56 - 542, 1956 - 2 C.B. 327. These are:

(a) There must be a right to receive and share in the ore or mineral itself and that right must be a binding right, not terminable at the will of another.

(b) The right must stem from an 'investment'. Investment means the acquisition of a direct equity in the ore.

(c) Recovery of the investment must be dependent solely upon the extraction of the ore.

The depletion allowance may be calculated separately for each property of the taxpayer or, at the taxpayer's binding election, on more than one property. Property is defined to mean "each separate interest owned by the taxpayer in each mineral deposit in each separate tract or parcel of land". (Regulation 1.614-1(a)). Interests are regarded as separate if separated geographically or by conveyancing.

368. The first branch of the deduction relates to costs attributable to the property. The provisions referring to the deferment or capitalization of exploration and development costs (paragraphs 542 and 544) have been mentioned above. These capitalized costs, together with any costs of acquisition, make up the "basis" of the property. A part of this basis may be written off annually in the proportion that production for year bears to such production plus recoverable reserves at the end of the year. Thus, if

the unamortized basis at the beginning of the year was $5 million, production during the year was one million tons and estimated recoverable reserves at the end of year nine million tons, the amount written off during the year would be -

$$\frac{1,000,000}{1,000,000 + 9,000,000} \times \$5,000,000 \text{ or } \$500,000$$

369. The second branch of the deduction is "percentage depletion". Depending on the type of mineral being extracted, a percentage varying from 5 to 23 per cent of gross income from the property may be claimed as a deduction, but this deduction may not exceed 50 per cent of net income from the property. Gross income in this context means gross income from mining, which includes both the extraction of the ore and certain processing operations normally considered an integral part of mining. These operations are essentially the separation or extraction of the product from the ore, (Regulation 1.613-3(c)(7)), but also include the treating of low grade iron ore to produce a shipping grade. Operations specifically excluded from the definition of mining include roasting, calcining, smelting and refining. "Gross income" (in most cases being equivalent to gross revenue) to the end of the mining processes must then be calculated. This is based on market values in the vicinity of the mine if at the end of his mining processes the taxpayer produces a commercial product. If this measurement is not appropriate, total profits from mining and processing will be apportioned between mining processes and other operations.

370. Net income from the property means the "gross income from the property" less allowable deductions attributable thereto. These deductions include administrative and financial overhead, operating expenses, selling expenses, depreciation, taxes, losses sustained, exploration or development

expenditures which are deducted in the year incurred, and deferred exploration expenditures (paragraph 361). Outside exploration expenses are not included among these deductions.

371. In practice, it appears that claims for percentage depletion greatly exceed those for cost depletion, particularly since the "basis" of property is often reduced by the taxpayer electing not to capitalize preproduction expenses. Percentage depletion reduces "basis" but does not convert it to a negative amount.

Exempt Income

372. Income from new mines is not exempt from tax.

PURCHASE AND SALE OF MINING PROPERTIES

373. A sale for cash or debt is treated basically as a capital gain provided that the property has been held for at least six months and the seller is not a trader in properties. To the extent that depreciable property is included among the property sold, there may be recapture of depreciation. The Treasury is considering whether there should also be recapture of cost depletion and of exploration and development costs but at present no such provisions exist.

374. A sale for shares would normally be treated as a tax-free exchange, the shares acquired taking on the basis of the property sold. No tax would then arise until a taxable disposition of the shares took place.

375. A transfer of an interest in a property in consideration of a series of payments may be treated as a sale, subject to capital gains treatment described above, or as a lease giving rise to ordinary income, subject to depletion, depending on the form and intent of the agreement. This question

is not governed by statutory rules (as by section 6(1)(j) of the Canadian Act) but by a consideration of the substance of the agreement in each case.

376. A transfer may also be made by selling the property subject to reserving an interest in the proceeds from production. Such proceeds can be treated as ordinary income from a retained interest, and subject to depletion allowances.

APPENDIX A

COMPARISON OF EFFECT ON PAYBACK CALCULATIONS OF ALLOWANCES TO MINING COMPANIES, ASSUMING (1) 50% INVESTMENT IN DEVELOPMENT EXPENSES AND 50% IN DEPRECIABLE PROPERTY AND (2) INCOME TAX RATE OF 50%

(number of years)

	Expected life of mine (yrs) from commencing production	A. NO DEPLETION OR EXEMPTION — Development expenses: Deductible over life of mine	A. Development expenses: Immediately deductible — Existing income	A. Immediately deductible — No existing income	B. EXEMPTION - NO DEPLETION — Development expenses: Deductible over life of mine — Including exempt period	B. Deductible over life of mine — After exempt period only	B. Immediately deductible — Existing income	B. Immediately deductible — No existing income	C. DEPLETION - NO EXEMPTION — Development expenses: Deductible over life of mine	C. Immediately deductible — Existing income	C. Immediately deductible — No existing income	D. EXEMPTION AND DEPLETION — Development expenses: Deductible over life of mine — Including exempt period	D. Deductible over life of mine — After exempt period only	D. Immediately deductible — Existing income	D. Immediately deductible — No existing income
Column No.		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
SHORT PAYBACK	3	2.9	2.8	2.9	2.9	2.9	2.1	2.9	2.9	2.9	2.9	2.9	2.9	2.4	2.9
	5	3.6	3.3	3.3	2.9	2.9	2.1	2.9	3.3	3.1	3.1	2.9	2.9	2.4	2.9
(Annual cash flow 35% of investment)	8	4.2	3.6	3.6	2.9	2.9	2.1	2.9	3.6	3.3	3.3	2.9	2.9	2.4	2.9
	11	4.5	3.7	3.8	2.9	2.9	2.1	2.9	3.8	3.4	3.4	2.9	2.9	2.4	2.9
	14	4.7	3.8	3.9	2.9	2.9	2.1	2.9	3.9	3.4	3.5	2.9	2.9	2.4	2.9
MEDIUM PAYBACK	5	4.4	4.3	4.3	4.1	4.0	3.0	4.0	4.3	4.2	4.2	4.1	4.0	3.3	4.0
	8	5.3	4.8	4.8	4.3	4.2	3.0	4.0	4.8	4.4	4.4	4.2	4.1	3.4	4.0
(Annual cash flow 25% of investment)	11	5.8	5.1	5.1	4.5	4.4	3.0	4.0	5.1	4.6	4.6	4.3	4.2	3.4	4.0
	14	6.2	5.2	5.2	4.6	4.5	3.0	4.0	5.3	4.7	4.7	4.3	4.3	3.5	4.0
	17	6.5	5.3	5.3	4.6	4.6	3.0	4.0	5.4	4.7	4.7	4.3	4.3	3.5	4.0
LONG PAYBACK	8	7.3	7.1	7.1	7.0	6.7	5.4	6.7	7.0	6.9	6.9	6.9	6.7	5.8	6.7
	11	8.3	7.7	7.7	7.6	7.3	5.8	6.7	7.7	7.3	7.3	7.2	7.0	6.1	6.7
(Annual cash flow 15% of investment)	14	9.0	8.1	8.1	8.0	7.7	6.1	6.7	8.1	7.5	7.5	7.4	7.3	6.3	6.7
	17	9.5	8.3	8.3	8.2	8.0	6.2	6.7	8.3	7.6	7.6	7.6	7.5	6.4	6.7
	20	10.0	8.5	8.5	8.5	8.3	6.3	6.7	8.5	7.7	7.7	7.7	7.6	6.5	6.7

NOTES:

1. These payback calculations are taken from the commencement of production rather than from commencement of investment.
2. No interest factor for use of funds employed has been included; while such a factor is desirable to calculate the true payback period in any one case, absence of the factor does not materially affect comparisons.
3. The additional effect of accelerated depreciation is not considered in this table. A straight-line rate over the life of the mine (including tax exempt period where applicable) has been used in all cases.
4. In columns (7) and (14) development expenses are deductible in full immediately following the exempt period.

APPENDIX B

COMPARISON OF EFFECT ON RATES OF RETURN OF ALLOWANCES TO MINING COMPANIES, ASSUMING (1) 50% INVESTMENT IN DEVELOPMENT EXPENSES AND 50% IN DEPRECIABLE PROPERTY AND (2) INCOME TAX RATE OF 50%

		A. NO DEPLETION OR EXEMPTION			B. EXEMPTION - NO DEPLETION				C. DEPLETION - NO EXEMPTION			D. EXEMPTION AND DEPLETION			
		Development expenses:			Development expenses:				Development expenses:			Development expenses:			
			Immediately deductible		Deductible over life of mine		Immediately deductible			Immediately deductible		Deductible over life of mine		Immediately deductible	
	Expected life of mine (yrs) from commencing production	Deductible over life of mine	Existing income	No existing income	Including exempt period	After exempt period only	Existing income	No existing income	Deductible over life of mine	Existing income	No existing income	Including exempt period	After exempt period only	Existing income	No existing income
Column No.		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
SHORT PAYBACK	3	1.3%	2.8%	1.3%	2.5%	2.5%	19.0%	2.5%	1.7%	3.7%	1.7%	2.5%	2.5%	12.6%	2.5%
(Annual cash flow 35% of investment)	5	11.7	15.3	13.0	19.0	22.1	32.0	22.1	15.3	18.0	16.3	20.1	22.1	28.2	22.1
	8	17.0	21.8	19.5	25.0	26.0	37.2	27.5	21.5	25.5	23.9	27.2	28.7	34.6	30.0
	11	18.8	23.9	21.5	26.8	27.8	38.4	28.7	24.0	28.4	26.7	29.5	29.8	36.5	31.0
	14	19.3	24.1	22.0	27.1	28.1	38.5	29.5	24.5	28.6	27.2	30.1	30.4	36.8	32.0
MEDIUM PAYBACK	5	4.0	5.2	4.3	6.5	8.0	19.8	7.3	5.4	6.5	5.6	7.0	8.0	15.3	7.5
(Annual cash flow 25% of investment)	8	10.1	13.0	10.9	14.5	15.9	23.2	16.4	13.1	15.4	14.0	16.0	16.8	21.7	16.8
	11	12.4	15.7	14.0	17.0	17.6	25.0	18.7	15.6	18.5	17.1	18.9	19.3	24.0	20.0
	14	13.2	16.8	15.4	18.0	18.4	25.5	19.7	16.9	19.7	18.5	20.0	20.3	24.8	20.8
	17	13.8	17.5	16.0	18.3	18.5	25.7	20.7	17.7	20.3	19.1	20.6	20.7	25.1	21.8
LONG PAYBACK	8	2.3	2.8	2.4	3.0	4.2	10.0	4.2	2.9	3.5	3.0	3.5	4.2	7.1	4.2
(Annual cash flow 15% of investment)	11	5.1	6.6	5.6	6.7	7.5	11.2	7.8	6.5	7.7	7.0	7.5	8.1	10.7	8.3
	14	6.5	8.2	7.5	8.4	8.8	12.8	9.3	8.5	9.8	9.2	9.6	9.9	12.3	10.5
	17	7.4	9.5	8.4	9.3	9.5	13.2	10.4	9.5	11.0	10.4	10.6	10.8	13.2	11.4
	20	7.8	10.0	9.1	9.7	9.9	13.6	10.8	10.0	11.6	10.8	11.2	11.4	13.7	12.0

NOTES:

1. For comparability with Appendix A, these rates of return have been calculated for the period from the commencement to the end of production; rates of return, taking into account the preproduction period, would be lower.
2. The additional effect of accelerated depreciation is not considered in this table. A straight-line rate over the life of the mine (including tax-exempt period where applicable) has been used in all cases.
3. In columns (7) and (14) development expenses are deductible in full immediately following the exempt period.

APPENDIX C

CHRONOLOGICAL CHART OF INCOME TAX PROVISIONS RELATED TO MINING

Year applicable	Exemption from tax of prospectors' and grubstakers' gains	Deduction of prospecting, exploration and development expenses	Three-year exemption for new mines	Depletion allowances a/ Precious metal	Base metal	Coal	Industrial minerals	Depreciation allowances	Provincial mining taxes	Comments
1917				50%/50%	25%/25%	Nil	Reasonable unit of production	Max. of 15% of cost per annum for mine bldgs., plant and equipment		Depletion allowances based on examination of U.S. system. See also Section V, Appendix A, for historical summary of U.S. depletion provisions
1927						10¢ per ton mined				
1929					33-1/3%/33-1/3%					
1934-5 b/				33-1/3%/20%	33-1/3%/20%					
1936			Applicable to new metalliferous mines commencing production after May 1, 1936							Depreciation and pre-production costs were required to be written off at the same rate during and after the exempt period
1939			Extended to Jan. 1, 1943. Exemption from excess profits tax granted to base metal or strategic mineral mine entering production before Jan. 1, 1943							
1941	Ruling agreed with Ontario Prospectors' and Developers' Assoc. to exempt certain gains									

continued

Appendix C continued

Year applicable	Exemption from tax of prospectors' and grubstakers' gains	Deduction of prospecting, exploration and development expenses	Three-year exemption for new mines	Depletion allowances [a] Precious metal	Depletion allowances [a] Base metal	Depletion allowances [a] Coal	Depletion allowances [a] Industrial minerals	Depreciation allowances	Provincial mining taxes	Comments
1943		Tax credits of 40% of expenditure for contributions and expenses on prospecting for base metals and strategic minerals - max. deduction from individual's tax - $5,000 - terminated Dec. 31, 1945								
1945			Exemption from excess profits tax extended to gold				33-1/3%/20% for non-bedded and certain bedded deposits; for all others, cost depletion only			
1946		Tax credit extended to corporations whose chief business was mining or exploring - no matter what minerals	Exemption from income tax reinstated applicable to base metal and strategic minerals after 1943; and to all others (except "bedded" industrial minerals) after 1945							
1947 [c]			Any new gold mines coming into production after Jan. 1, 1946 not required to take depreciation or preproduction write-offs in 3-yr. period	For gold only - greater of 40% or $4/ounce; 20% on dividends					Deduction of provincial mining tax from taxable income	Loss can be created by taking $4/ounce depletion for gold mines only

continued

Appendix C continued

Year applicable	Exemption from tax of prospectors' and grubstakers' gains	Deduction of prospecting, exploration and development expenses	Three-year exemption for new mines	Depletion allowances a/				Depreciation allowances	Provincial mining taxes	Comments
				Precious metal	Base metal	Coal	Industrial minerals			
1948		Tax credit changed to a deduction from income							Applicable to municipal taxes relating to mining.	
1949	Sec. 83 introduced to authorize practices set out in above ruling							30% on mine machinery equipment and bldgs. diminishing balance; 100% shaft-sinking etc.		Permissive capital cost provisions meant that the new mines were not required to write off depreciation in tax-exempt period
1951				Non-operator entitled to 25% depletion on amount of rental or royalty based on production						
1953		Principal business to include producing, refining, marketing exploring or drilling for petroleum or natural gas								
1954							Sylvite granted % depletion			
1955		Section 83A enacted								
1956							Halite granted % depletion			
1957		Principal business to include processing mineral ores					Silica granted % depletion		Dominion-Provincial agreements lapsed - Reg. 701 governs	

continued

Appendix C continued

Year applicable	Exemption from tax of prospectors' and grubstakers' gains	Deduction of prospecting, exploration and development expenses	Three-year exemption for new mines	Depletion allowances a/ Precious metal	Base metal	Coal	Industrial minerals	Depreciation allowances	Provincial mining taxes	Comments
1960		Halite and sylvite exploration costs now immediately deductible								
1961		Principal business to include processing minerals and fabricating metals								
1962		Joint exploration corporation provisions introduced					Gypsum granted % depletion			

NOTES: a/ At Minister's discretion to end of 1946 taxation year; since then by regulation. The first percentage is the mine depletion allowance based on profits; and the second is the maximum rate applicable on shareholders' dividends.

b/ A bullion tax of 10% of gold production applied in 1934 and 1935; the change in depletion allowances for gold did not take place until the bullion tax had been repealed in 1935.

c/ The Canadian dollar was established at parity of exchange with the U.S. dollar in 1946.

Concluded

APPENDIX D

BRIEF HISTORY OF UNITED STATES DEPLETION PROVISIONS 1/

1. Section 38 of the Tariff Act of 1909 imposed a tax of 1 per cent upon the incomes of corporations for the privilege of doing business. On March 29, 1910, Treasury Decision 1606 was issued pursuant to this Act. Paragraph 74 provided for "estimated depreciation in oil or gas wells, building, machinery, etc., to be stated in detail, if exceeding 5 per cent of value as previously inventoried".

2. Section II (G)(b) of the Tariff Act of 1913 provided for a deduction in computing taxable income of "in the case of mines a reasonable allowance for depletion of ores and all other natural deposits, not to exceed 5 per cent of the gross value at the mine of the output for the year for which the computation is made".

3. The Revenue Act of 1916, Title II, section 12 (a) modified this deduction, providing for a reasonable allowance not to exceed (a) in any one year the market value at the mine of the year's production or (b) in total "the capital originally invested, or in the case of purchase made prior to March 1, 1913, a fair market value as of that date".

4. The Revenue Act of 1918, Title II, section 234 (a)(9) extended the deduction for "mines discovered by the taxpayer on or after March 1, 1913, and not acquired as the result of the purchase of a proven tract, where the fair market value of the property is materially disproportionate to the cost" to the basis of "the fair market value of the property at the date of the discovery or within 30 days thereafter". This introduced the concept of discovery depletion. It was justified partly by analogy to

the valuation of mines in existence before March 1, 1913 and partly by war-time exigencies.

5. Revenue Act of 1921, Part III, section 234 (a)(9) limited the deductions provided by the 1918 Act to the greater of a reasonable allowance based on cost or "the net income (before the deduction) from the property upon which the discovery is made".

6. Revenue Act of 1924, Part 1, section 204 (c), reduced the second branch of this deduction to 50 per cent of net income. This reduction was introduced following a drastic fall in the price of oil.

7. Following vigorous criticism of discovery depletion in the report of the Couzens Committee of 1925 and with administrative difficulties in determining values for purposes of the depletion base, the Revenue Act of 1926 introduced percentage depletion (27-1/2 per cent) in place of discovery depletion for oil and gas wells. The rate appears to be a compromise between 25 per cent recommended by the House of Representatives and 30 per cent favoured by the Senate.

8. Revenue Act of 1932 extended percentage depletion to metal, sulphur and coal mines, if the taxpayer made binding election to use percentage and not cost basis.

9. Revenue Acts of 1942 and 1943 extended percentage depletion to non-metallic mining and the requirement to make a binding election was removed

<u>REFERENCE</u>

1/ Principal Source - Oscar H. Lentz, "Mineral Economics and the Problem of Equitable Taxation" Vol. 55, No, 2 of the <u>Quarterly of the Colorado School of Mines, 1960</u>.

APPENDIX E

CALCULATION OF THE TAX LIABILITY IN CANADA AND THE UNITED STATES OF A UNITED STATES INCORPORATED MINING COMPANY QUALIFYING AS A WESTERN HEMISPHERE TRADE CORPORATION AND DOING ALL OF ITS BUSINESS IN CANADA

	CANADA				UNITED STATES			
	Property #1	Property #2	Property #3	Total	Property #1	Property #2	Property #3	Total
Gross income from property	10,000,000	1,000,000		11,000,000	10,000,000	1,000,000		11,000,000
Mining costs	5,000,000	750,000		5,750,000	5,000,000	750,000		5,750,000
Depreciation	1,000,000	250,000		1,250,000	1,000,000	250,000		1,250,000
Development	250,000	500,000	500,000	1,250,000	250,000	500,000	500,000	1,250,000
Profit (Loss) before depletion	$ 3,750,000	($ 500,000)	($500,000)	$ 2,750,000	$ 3,750,000	($ 500,000)	($500,000)	$ 2,750,000
Depletion -								
Canada 33-1/3%				916,667				
U.S.A. lesser of: 15% of gross					1,500,000			1,500,000
50% of net					1,875,000			
Taxable income				1,833,333				1,250,000
Less: Special credit for Western Hemisphere Trade Corporations 27% of taxable income								337,500
				$ 1,833,333				$ 912,500
Tax @ 50%				$ 916,667				$ 456,250

APPENDIX F

QUESTIONNAIRE CONCERNING ACCOUNTING PRACTICES AND STATISTICAL INFORMATION

ACCOUNTING PRACTICES

1. With the assistance of The Mining Association of Canada and their accounting representatives, information on accounting practices was sought from about twenty major mining and exploration companies and replies were received from most of them.

2. The following definitions were used:

   (a) prospecting: the initial reconnaissance of an area to ascertain whether evidence of mineralization exists.

   (b) Property: a group of contiguous claims.

   (c) Property examination: the examination of particular properties (whether previously mined or not) that show evidence of mineralization, to ascertain whether they contain commercial ore.

   (d) Area of interest: a group of claims or properties related to each other in such a way that information in respect of one claim is relevant to appraising others.

   (e) Development: the preparation of an area believed to contain ore for production of the ore in commercial quantities.

3. Using these definitions, the following questions were asked on accounting matters:

(1) Re: Exploration

(i) Describe the company's practice in accounting for the costs of prospecting and property examination. 1/

(ii) If such costs are not written off as incurred, describe when they are written off, having regard to the different ways by which a property or other interest may be dealt with - for example:

(a) Abandoned entirely.

(b) Abandoned in part only.

(c) Active examination abandoned but legal title retained.

(d) Retained for further examination or development.

(e) Sold to unrelated parties.

(f) Sold to another company (usually formed for the purpose of further developing the property) in consideration of shares.

(iii) In the case of (e) and (f) above, how are the proceeds of sale accounted for?

(iv) Does the company adopt the concept of an "area of interest" in dealing with the property examination costs of partly abandoned properties? Give reasons for approach taken.

(2) Re: Development

(i) What is the company's practice in accounting for revenue derived from the sale of ore produced in the development period?

(ii) At what stage does the company regard development as having ended? Explain.

(3) <u>Re: Production</u>

(i) Does the company's accounting treat the cost of developing ore underground entirely as an expense in the period in which incurred, or in any circumstances as a deferred cost?

(ii) (a) What is the first point in the mining and treatment process at which values are ascribed to inventory?

(b) Describe the basis of valuation at that point. If "cost", what costs are included?

(iii) (a) What basis of valuation is used for inventories of end-product?

(b) Is this affected by whether or not there are sale contracts covering the inventory on hand?

(iv) Describe the bases used in the accounts during the period of production for writing off expenditures on:

(a) buildings

(b) machinery and equipment

(c) townsites

(d) roads and railways

(e) prospecting, property examination and development costs

(f) mining claims

4. The answers to these questions are summarized as follows:

		Number
(1)	Practice for the costs of prospecting and property examination - Question 1(i)	
	Number of companies answering question	11
	Practices adopted:	
	Cost written-off as incurred	8
	Costs written-off as incurred, except for costs of purchasing properties	1
	Deferred until active examination is completed, at which time written-off or capitalized	1
	Deferred only if strong evidence of mineralization exists	1

Because of practice of writing-off usually adopted, answers to questions 1(ii) (iii) and (iv) were usually "not applicable".

		Number
(2)	Practice for development costs - Question 3(iv)(e)	
	Number of companies answering question	16
	Practices adopted:	
	Cost written-off as incurred	2
	Deferred and written-off on unit-of-production or similar basis	13
	Deferred and written-off on declining balance method	1
(3)	Practice for proceeds of development ore - Question 2(i)	
	Number of companies answering question	14
	Practices adopted:	
	Credited against development costs	10
	Income of the year of sale	4

(4) Practice regarding end of development period - Question 2(ii)

Number of companies answering question	14
Practices adopted:	
At point of sustained level of reasonable production	13
Commencement of stoping operations	1

(5) Practice for treatment of costs of developing ore underground - Question 3(i)

Number of companies answering question	15
Practices adopted:	
Written-off as incurred	7
Usually written-off as incurred but material amounts sometimes deferred	5
Generally deferred	3

(6) Practice regarding first point in the mining and treatment process at which values are ascribed to inventory - Question 3(ii)(a)

Number of companies having mills and answering questions	10
Practices adopted:	
Output of smelter	1
Output of the mill	7
Ore in stockpile on surface	2

Valuation at this point was in all cases "lower of cost or market" unless it was also an end-product. Costs included costs of all prior operations.

(7) Practice regarding valuation of inventories - Questions 3(ii)(b) and 3(iii)(a)

Number of companies answering question	14

Practices adopted:	
Lower of cost or market	6
Net realizable value	8

(8) Practice regarding depreciation - Question 3(iv)

Number of companies answering question	15	
	Partly	Entirely
Practices adopted:		
Straight-line	4	6
Diminishing balance	3	-
Sum-of-digits	1	1
Unit of production	1	4

STATISTICAL INFORMATION

5. Using the same definitions, a number of questions were directed at obtaining statistical information. Some of these questions were relevant only to the economic study of mining taxation. Those relevant to this study were as follows:

(1) Re: Exploration

(i) What was the approximate cost of carrying out prospecting and property examination work, 2/ in each of the years 1953 to 1962:

(a) inside Canada?

(b) outside Canada?

(ii) If an allocation of administrative or other indirect expense is included, indicate approximately how much for each year.

(2) Re: Development

(i) What was the approximate cost of carrying out development work in each of the years 1953 to 1962?

(ii) What portion, if any, of this cost is represented by the value attributed to shares issued by the company?

(iii) If, in addition to the costs referred to in (i) above, any substantial costs were incurred in the years 1953 to 1962 in properties, state the approximate cost and the portion thereof, if any, represented by the value attributed to shares issued by the company.

(3) Re: Production

(i) What was the approximate amount expended by the company on fixed assets in each of the years 1953 to 1962 (do not include any amounts already listed under questions 1 and 2 above):

(a) for buildings, machinery and equipment;

(b) for auxiliary facilities such as townsites, power plants, etc.?

(ii) For each individual mine operated by your company after 1952 please list:

(a) year property first examined by the company;

(b) year development commenced;

(c) year mine commenced production;

(d) year mine closed, if closed.

(iii) Did your company have any mines in tax-exempt periods during the years 1953 to 1962? If so, indicate for each mine:

(a) date of commencement of tax-exempt period;

(b) total amount of the exempt income for tax purposes in those years;

(c) the approximate difference between the amount of the exempt income for tax purposes and the income of the mine determined in accordance with the company's normal accounting practice;

(d) what portion of the difference referred to in (iii) is represented by depreciation and amortization of preproduction expenses? If the remainder is a substantial amount, please provide details.

6. The answers to these questions were:

(1) Re: Exploration

Cost of exploration 1953-1962 excluding administrative overheads	Inside Canada (millions of dollars)	Outside Canada (millions of dollars)
Total for 14 companies answering	125.5	8.7

(2) Re: Development and Production

Expenditures 1953-1962 in cash	Development Expenditures (millions of dollars)	Fixed Asset Expenditures (millions of dollars)
Total for 17 companies answering	387.5	1,169.6

(3) Re: Length of Development Period

Number of years between commencing development and commencing production	Number of mines in each year - class. Total for 14 companies answering
1	9 a/
2	6
3	7
4	8
5	3
6	4
7	3
over 7	6

a/ Including 4 open-pit operations.

(4) Re: Tax-Exempt Period

Tax-exempt income 1953-1962

	(millions of dollars)	
	Tax-exempt income	Profit per accounts for tax-exempt mines
Total for 8 companies answering	267.6	179.9

REFERENCES

1/ The same questions were asked about prospecting and property examination separately, but all companies answering the questionnaire treated both activities in the same manner.

2/ See previous note.

CANADA

STUDIES

OF THE

ROYAL COMMISSION ON TAXATION

NUMBER 10

Taxation of the Family