TR 95/D17 - Income tax: characterisation of expenditure incurred in establishing and extending a mine

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Draft Taxation Ruling

Income tax: characterisation of expenditure incurred in establishing and extending a mine

Other Rulings on this topic
IT 353; IT 356; IT 2269

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Preamble

Draft Taxation Rulings (DTRs) represent the preliminary, though considered, views of the Australian Taxation Office. DTRs may not be relied on by taxation officers, taxpayers and practitioners. It is only final Taxation Rulings that represent authoritative statements by the Australian Taxation Office of its stance on the particular matters covered in the Ruling.

What this Ruling is about

Class of person/arrangement

1. This Ruling applies to taxpayers who carry on prescribed mining operations as defined in subsection 122(1) of Division 10 of part 111 of the *Income Tax Assessment Act* 1936 (the Act)

2. This Ruling deals with:

(a) the meaning of the word "mine" as used in Division 10 of the Act;

(b) the general distinction between capital expenditure incurred in operating a mine;

(c) the type of expenditure that is incurred in underground mining and its characterisation into capital and revenue expenditure, including the taxation treatment of decline tunnels following the decision in *Mount Isa Mines Ltd v. FC of T* 91 ATC 4154; 21 ATR 1294;

(d) the special features of strip mining, the taxation treatment of costs incurred in overburden removal and the construction of access roads or ramps; and

(e) open pit mines and the capital/revenue distinction in respect of costs incurred in constructing haulage roads through country rock and within the ore body and the costs incurred in removing overburden.

Ruling

3. A mine is an excavation in the earth for the purpose of extracting minerals. Each excavation whether it be an underground mine, a strip of mine, or an open pit mine, having its own separate access and extraction facilities, is a separate mine.

4. Generally, expenditure incurred on the creation, making or extension of a mine is capital expenditure while expenditure incurred in the working or extraction of the ore body is a revenue expense.

5. In underground mining the cost of getting access to the place where extraction of valuable ore is to commence is capital expenditure. Such costs may include constructing vertical shafts, ventilation shafts, decline tunnels, horizontal drives, passageways for vehicle transportation, railways or conveyor systems.

6. The cost for extracting ore from an underground mine is a revenue cost being a cost incurred in the operation of a mine. Ore is usually extracted using recognized methods of extraction, including room-and-pillar mining, longwall mining, sub level open stoping, vertical crater retreat mining, sub level caving, block caving, top slicing, vein or raise mining, cut-and-fill stoping, undercut-and-fill mining, shrinkage stoping, long-hole open stoping and alimak raise mining.

7. The cost of constantly extending a decline tunnel that plays a part in the actual extractive process is a revenue cost. The characteristics of such a decline tunnel are that it is dug in a series of relatively small excavations. It follows the ore body and is dug as close to the ore body as practicable. In addition, the decline allows for the extraction of ore in the immediate vicinity, with the ore being extracted in a relatively short period of time.

8. In strip mining the cost of constructing access road or ramps to get down to the ore body or seam is a cost of establishing a mine and is a capital expense. The cost of removal of the overburden above the ore body to expose it and allow for its extraction is a revenue cost.

9. In open pit mines, haulage roads include direct ramps and those that either spiral around the perimeter of the pit or zigzag down one side or face of the pit. If the purpose of the pit is to make initial contact with an ore body and it is dug through country rock outside the perimeter of the ore body, its cost is a capital expense. The cost of removal of overburden above an ore body is a revenue expense. The cost of constructing a temporary road above an ore body that is subsequently removed to allow for the extraction of ore beneath the road is a revenue expense.

Date of effect

10. This Ruling applies to years commencing both before and after its date of issue. However, the Ruling does not apply to taxpayers to the extent that it conflicts with the terms of a settlement of a dispute agreed to before the date of issue of the Ruling (see paragraphs 21 and 22 of Taxation Ruling) TR 92/20).

Previous Rulings

11. Canberra Income Tax Circular Memorandum 700 is withdrawn with effect from 9 August 1995. Taxation Determination TD 94/D7 will be withdrawn on or before finalisation of this Draft Ruling.

Definitions

12. Many of the terms used in this Draft Taxation Ruling are unique to the mining industry. Some of the common terms are listed below, together with a short explanation:

'country rock' – a loose term to describe the general mass of rock adjacent to an orebody, as distinguished from the vein or ore deposit itself. Also known as host rock.

'crosscut' – a horizontal opening driven from a shaft and at right angles to the strike of a vein or rock formation.

'decline' – a sloping underground opening, usually driven at a grade of about 15% to 20%, for machine access from level to level or from surface.

'drift' – a horizontal underground opening that follows along the length of a vein or rock formation as opposed to a crosscut which crosses the rock formation.

'grizzly' – a grating (usually constructed of steel rails) placed over the top of a chute or ore pass for the purpose of stopping large pieces of rock or ore that may hang up in the pass.

'level' – a system of horizontal underground workings, connected to the shaft. It is customary to establish levels at regular intervals, generally about 50 meters apart.Explanations

'ore' – a mineral deposit that can be worked at a profit under existing economic conditions.

'orebody' – a natural concentration of valuable material that can be extracted and sold at profit.

'ore pass' – an inclined underground opening intended for transfer of ore.

'overburden' – the surface waste or worthless rock overlying a flat or moderately inclined economic deposit, thin enough to warrant its removal to expose and mine the deposit by open pit mining.

'raise' – an underground opening driven upward from one level to another.

'stope' – an excavation in a mine from which ore is being or has been extracted.

'waste' – barren rock or rock of too low grade to be mined economically.

Explanations

13. In *A Concise History of Mining* by CE Gregory (Pergamon Press, Oxford, 1980), 'mining' is defined as 'the process of obtaining useful minerals from the Earth's crust for the benefit of mankind. Mining is mineral production. It includes both underground excavations and surface workings'. A 'mine' is defined in the *Macquarie Dictionary*, 2nd, as '1. An excavation made in the earth for the purpose of getting out ores, precious stones, coal, etc'.

14. In *MNR v. Bethlehem Copper Ltd* 74 DTC 6520, the Supreme Court of Canada pointed out that a taxpayer did not acquire a mine merely because it acquired a portion of the earth containing a mineral deposit. A mine was a combination of the mineral deposits, the workings and the equipment and machinery needed to extract the ore.

15. In that case the court decided that mining itself is complete by the production and hoisting of the ore. The court decided that two open pit mines that operated relatively close to each other were in fact two distinct mines. Each became a mine because each had its own separate and distinct extraction facilities.

16. While the sinking of a new shaft is often the creation of a mine, this is not always the case. A new shaft that joins up with existing extraction works, thereby allowing for the better overall working of the mine, may simply be the extension of an existing mine.

17. This was the case in *MNR v. The McLean Mining Co Ltd* 70 DTC 6268. This case involved an underground mine where a new ore body was discovered about 300 metres from the nearest other known

ore body. An existing shaft was deepened and an exploratory heading from that shaft was driven towards the new ore body. A new shaft was sunk for mining the new ore body and an underground haulage way was built to another shaft close to the mill. However, the existing shaft continued to be used to provide access and fresh air for the miners, compressed air for operating their drills, sand for filling the mined-out stopes and for the extracting of underground water that utilized the tunnel that was built as the exploratory heading. In these circumstances the court decided that there was only one mine; the opening up of the new ore-body was an extension of an existing mine as use was made of existing extraction facilities in working the ore-body.

18. The question of the existence of separate mines is one that will depend upon the facts of each individual case. Varying degrees of physical separation or separation in the time and mode of operation need to be considered. Where there is more than one mine on the mining property, the deduction allowable for allowable capital expenditure is based upon the lesser of ten years or the estimated life of the mine that has the longer or longest estimated life: refer paragraph 122DG(3)(b) of the Act.

19. To qualify as allowable capital expenditure, the expenditure must be of a capital nature. There is a long line of judicial authority that regards expenditure on establishing and extending a mine as capital expenditure. The general rule is that:

- expenditure incurred on the creation, making or extension of a mine is capital expenditure; while
- expenditure incurred in the working or extraction of the ore-body is revenue expenditure.

20. This general rule is found in the frequently quoted statement of Dixon J in Sun Newspapers Limited v. FC of T (1938) 61 CLR 337 at 359, where he said:

> 'The distinction between expenditure and outgoings on revenue account and capital account correspond with the distinction between the business entity, structure, or organisation set up or established for the earning of profit and the process by which such an organisation operates to attain regular returns by means of regular outlays, the difference between the outlay and returns representing profit or loss'.

21. The principal is applicable to taxpayers carrying on mining operations as explained by Lockhart J in *FC of T v. Ampol Exploration Limited* 86 ATC 4859; 18 ATR 103. His Honour said (at ATC 4872; ATR 119):

> 'ordinarily the purchase by a taxpayer of a right to mine is expenditure of a capital nature and would not be deductible in the

> absence of special statutory provision. Preliminary expenses incurred in the establishment of a mine also would ordinarily be in the nature of capital expenditure. In general, expenses incurred with a view to setting up a business or extending a business are not allowable deductions. Where expenses are incurred in establishing, developing, extending or rejuvenating a mine, they will generally be of a capital nature since they are incurred for the purpose of bringing a capital asset into existence or enhancing it'.

22. The capital/revenue distinction is important to the timing of deductions. The consequence of the distinction is that revenue costs are immediately deductible under subsection 51(1), while capital costs are deductible as allowable capital expenditure under section 122DG.

Underground mines

23. In underground mines it is usual to construct shafts downwards from the surface and then branch out in a horizontal direction. From this position, a particular method of extraction can be employed to obtain ore from which valuable minerals will be extracted. The vertical shaft is usually in the country rock, that is, the barren or low grade rock formation that surrounds a mineral deposit. The horizontal passageways or drifts provide access for personnel and equipment from the vertical shaft to the place where extraction can commence.

24. In *Bonner v. Basset Mines Ltd* (1912) 6 TC 146 the court explained the characteristics of an underground mine as consisting of a vertical shaft that was used as centre was used from which levels and roads might be cut in various directions for the purpose of exploring and discovering lodes or pockets of ore. The vertical shaft was used as a ventilation shaft and for raising and lowering men and materials. It was not used for the purpose of following and winning ore from a more or less vertical lode. The court followed the earlier decision in *Robert Addie v. Solicitor of Inland Revenue* (1875) 2SC 431 and *Coltness Iron Company v. Black* (1881) 1 TC 287 in deciding that the cost of sinking of or deepening a shaft was an expense of a capital nature.

25. Once initial access is made to an area where valuable ore is to mined, the taxpayer has to decide on a particular method of extraction. Depending on the method of extraction, the taxpayer will need to construct excavations known as horizontal entries, access drifts, raises, grizzlies, ore passes, cross-cuts, etc. Expenditure incurred on a particular method of extraction is a revenue expense.

26. The decision about what is 'valuable' ore is one for the taxpayer but 'valuable' ore is basically any ore that the taxpayer intends to sell, either as is, or after further treatment.

27. An important point is that the method of extraction does not necessarily involve all excavations being physically within the valuable ore body. The construction of temporary drives, raises, etc. through waste material to reach the ore to be mined in the immediate future, is often part and parcel of a particular method of extraction. The continuous extension to reach the ore to be mined in the immediate future in the *Mount Isa* case (discussed below at paragraphs 37 to 42 below) is an example of a method of extraction.

28. Generally the following costs of extraction are capital costs:

- costs of constructing vertical or near vertical shafts that provide access for personnel, equipment or materials, including ventilation shafts;
- costs of constructing horizontal or near horizontal passageways through country rock to access ore bodies that will be worked for a considerable time, in this respect, a life of two or more years may indicate a considerable time;
- costs of constructing passageways, drives or declines that are not part of the extraction process (discussed in paragraphs 37 to 42) but are used in the mine for vehicle transportation, rail or conveyer systems; and
- costs of constructing below ground chambers to accommodate plant, work shops, change rooms, mess rooms, ore loading stations, etc.

29. Once an ore body of the desired quality is reached, extraction can commence. There are many methods of extraction and the most suitable method depends upon the size and shape of the ore body, the type of ore being mined, the condition of the country rock and the facility with which such ore or country rock can be cut, drilled or broken.

30. Some of the methods of extraction are: room-and-pillar mining, longwall mining, sub level open stoping, vertical crater retreat mining, sub level caving, block caving top slicing, vein or raise mining, cut-and-fill stoping, undercut-and fill mining, shrinkage stoping, long-hole open stoping, alimak raise mining, etc. Each method of extraction is a sophisticated engineering procedure requiring the input of mining specialists.

31. Costs incurred in carrying out the various methods of extraction are revenue costs. From an engineering point of view, the method of extraction differs in complexity to the vertical shafts and horizontal passageways that constitute the capital costs outlined in paragraph 27 above. The various methods of extraction are

sophisticated mining engineering processes, they are continually being extended and facilitate the extraction of the valuable ore.

32. It could happen that the desired location of an access passageway is actually through the valuable ore body itself. Such a situation occurred in *Denison Mines Limited v. MNR* 74 DTC 6525. In that case the taxpayer conducted an underground uranium mine using the room-and-pillar method that consisted of driving passageways into the ore body and extending the passageways into rectangular rooms where the ore was mined. All the passageways were driven through the ore body and not in the waste rock. However, as the passageways were designed for and were in fact, used as main haulage ways after the ore was extracted, they were of an enduring benefit to the taxpayers business.

33. The court had to decide whether the cost of the passageways was revenue or capital expenditure. In deciding that the costs were on revenue account the court emphasised that no more money would have been spent on extracting the ore, the extraction of which resulted in the passageways, than would have been spent if no long term continuing use had been planned for them. Moreover, the proper calculation of the taxpayers' profit for the year required the cost of goods sold including the cost of extraction to be offset against the proceeds of sale.

34. An important finding of fact was that there was no additional cost associated with the construction of the passageways. This meant that the entire cost could be directly related to the extraction of valuable ore without any apportionment being necessary. At the time the expenditure was incurred it was a revenue cost incurred in operating the mine and the fact that the mined out area was subsequently used as a passageway is regarded as being incidental to its main purpose of extracting ore.

35. Another modern development in the mining industry has seen the vertical shaft and its associated lifting equipment replaced by a decline tunnel. Improved technology has now made it possible to access underground ore by the use of corkscrew-shaped decline tunnels.

36. To be effective a corkscrew shaped decline has to have a grade of 1:7 or 1:9. With the development of rubber-tyred battery powered trucks for use in mines, it is now possible to use decline passages for ore body access. Prior to the development of these trucks there was no suitable machinery that could climb the very steep and sharply winding slope necessary for corkscrew shaped declines, with the only other alternative, namely fixed-track rail or tram vehicles, being unable to operate in a steep corkscrew passageway.

37. As a general rule of constructing a decline tunnel from the surface to the ore body is a capital expense, ie. it is a cost of

establishing or extending a mine. It is only where the decline is used as a method of extracting the valuable ore that its cost could be regarded as a revenue expense. The full Federal Court considered the deductibility of a decline tunnel in the *Mount Isa* case.

38. In the *Mount Isa* case, the taxpayer constructed a sloping tunnel, described as a decline, through which equipment could be driven for the purpose of access to the area from which the ore was extracted, ie., the stopes, and to remove the ore from the stopes to the surface of the mine.

39. The decline was extended from time to time as the ore was extracted and comprised relatively straight lengths and a number of sharp bends that established a type of zigzag as the decline extended to greater depths below the surface of the land. The decline was roughly parallel to the ore body but some 20 to 30 metres from it. It was constructed in flat 'S' configuration to provide access to the ore body at approximately 30 metres intervals. The decline was approximately 5 metres square.

40. The extracting sequence was to excavate the stope from the decline to the ore body and to extract the ore body downwards. As a result the decline had to be extended downwards periodically to provide access to new stoping areas and to permit the removal of the extracted material to the surface of the mine. The ore was extracted at the stopes, loaded into heavy duty trucks with a 30 tonne capacity and transported to the surface of the mine along with the decline including those parts of the decline that had been constructed during previous years.

41. In a decision that it described as 'finely balanced' the Full Federal Court held that the cost of constructing the extension of the decline during the particular tax year before the court was a revenue expense and deductible under subsection 51(1). An important part of the court's decision was its statement that a permanent vertical shaft giving access to an ore body is normally a capital affair but the decline in this case had a significantly different character to that of shafts.

42. The characteristics which distinguished the decline from a shaft are:

- The decline was dug, not all at once, but in a series of relatively small excavations; and
- The decline was not dug as an asset to be used in the mine as a whole, but was made in the process of getting access to the particular part of the ore to be mined in the near future.

43. Expenditure incurred on such a decline is accepted as a revenue expense. The decline did more than simply provide access to the ore, it was directly involved in the extraction of the ore. The ore at

a particular level was mined out in a relatively short time and the decline had to be continually extended to follow the ore body thus allowing the extractive process to continue. The cost of continually extending the decline was a recurring cost in the operation of the mine, it was dug as close as practicable to the ore body, followed the ore body and allowed for the extraction of ore in the near future.

Strip mines

44. Strip mining is the term applied mainly to the mining of near surface coal seams. However, other mineral deposits with low cohesive strengths can also be mined by this method. Most strip mines involve bedded sedimentary formations.

45. The first stage in strip mining is to remove the natural vegetation and topsoil. This is usually done by bulldozers and graders. Pre-stripping then takes place. Pre-stripping involves the construction of a level area from which a dragline can operate. A typical dragline currently in use is electrically powered and can walk under its own power. Some have a boom length of up to 80 metres and a bucket capable of lifting up to 100 tonnes of material at one time.

46. Once a level area is established by pre-stripping, the surface area is drilled with an electrically powered drill. Holes are drilled at intervals in a grid pattern from the surface to the top of the coal seam. Explosives are placed in the holes and the overburden material ie. the dirt, rock, shale and clay, in the drilled area is loosened by blasting.

47. The dragline then cuts an elongated trench or 'box cut' exposing the coal seam, usually starting at the point where it is nearest to the surface. The overburden from this first cut is usually deposited at a pre-selected location. The exposed seam is then mined.

48. After the exposed seam has been mined, the overburden from the next cut is back-filled into the first cut while at the same time exposing a further strip of coal. In this way, mining proceeds in a series of parallel strips minimizing the distance over which overburden is transported.

49. The dragline does not remove the coal but only exposes it. The exposed coal is loosened by drilling and blasting and allowed to fall to the bottom of the pit. The coal is then loaded onto trucks by bucket or front-end loaders. The trucks carry the coal out of the mine via access roads or ramps.

50. The access road or ramp is constructed by cutting into the land at a downwards angle usually at right angles to the coal seam, until the base of the seam is reached. Ramps usually have a decline of about eight degrees and have to be of sufficient quality to carry large trucks

and equipment. The overburden over the ramp is often removed by the dragline making a detour as it makes its pass over the coal seam. The ramp is always is always constructed where there is no mineable coal below, as coal below a ramp is not mined. Once the ramp reaches the floor or base of the coal seam it is then possible to commence extracting the coal.

51. Sometimes, more than one ramp will be constructed. This would occur, for example, where the length of the pit is long and an extra ramp reduced the distance that the trucks have to travel to the processing plant. Each ramp would generally be used throughout the life of the pit.

52. In strip mining, each pit (not each strip) constitutes a mine in its own right. Each pit has its own access ramp and a pit is extended by the dragline as it excavates adjoining parallel strips. The fact that several pits are in operation may arise because of geological factors or as a result of production requirements. The coal may not be in one continuous seam, so that it can only be commercially exploited by opening several separate pits or mines on the one site. Furthermore, the use of multiple pits or mines can be a planning decision in relation to the effective utilisation of expensive equipment, such as a dragline. Such equipment is usually rotated over the mine site to ensure maximum usage and minimum down time.

53. The creation of each pit or mine or distinct from the working of the mine would involve the construction of the ramp from the surface to the floor or base of the ore body. The construction of the ramp would involve the removal of overburden above the ramp and the construction of a road suitable to allow excavation equipment to access the coal seam and for trucks to remove the mined coal to the surface.

54. It is the cost of constructing the ramp that is regarded as capital expenditure. Its purpose is to create or establish a mine where previously only underground coal existed. The ramp is a necessary pre-condition before any extractive process can commence. Without the ramp there would be no means of getting personnel or equipment to the coal face or of getting the extracted coal to the surface. The ramp performs a function similar to that of the vertical access shafts in underground mines.

55. The cost incurred in the removal of overburden above the coal seam are revenue expenses and deductible under subsection 51(1). The purpose of this expenditure is to extract the coal immediately below that part of the overburden that is removed. It is not a pre-condition or prerequisite to establishing a mine but part of the actual process of working or operating the mine. Overburden removal does not add to the capital value of a mine in the same way as a vertical shaft adds value to an underground mine. Rather, being part of the

extractive process, the purpose of overburden removal is to reduce the capital value of the mine. A mine being a wasting asset is reduced in value every time valuable ore is extracted.

56. By necessity the overburden to be removed is always larger than the area of the seam to be mined to allow for side walls stability or for the required angle of the spoil line. All this overburden removal is part of the method of extraction and is an operating expense. Also included is the cost of removal of the natural vegetation, topsoil and any pre-stripping necessary to get at the coal seam. The exposed coal is usually mined within a year and the overburden that has been removed is replaced so that rehabilitation of the sit can proceed.

57. The cost of constructing the initial ramp to its first point of contact with coal, that is to be sold, is a capital expense. After that the ramp is extended along previously mined out strips. The cost of mining out these strips would be a revenue cost and, like the situation in the *Denison Mines* case discussed in paragraphs 31 to 33 above, the fact that they are subsequently used to extend the ramp is regarded as being incidental to their main purpose of extracting ore. Of course, any costs incurred in stabilising the ramps for long term use would be a capital expense, such costs would include drainage works and surface improvements.

58. Usually the construction of the ramp is done contemporaneously with the removal of overburden, but this may not necessarily be the case in all strip mines. In some strip mines the pre-stripping or overburden removal may precede the construction of the ramp of the ramp. This does not affect the treatment of the ramp as capital expenditure or the pre-stripping or overburden removal costs above the coal seam as being treated as revenue expenses. As Dixon J said in *Hallstroms Pty Ltd v. FC of T* (1946) 72 CLR 634 at 648, the answer to the income/capital question 'depends on what the expenditure is calculated to effect from a practical and business point of view'.

Open pit mines

59. Open pit mining, also referred to as open cut or opencast mining, is employed to exploit mineral deposits in any rock type lying on or near the surface. The optimum configuration of the pit depends upon the geometry of the ore body, the results of geotechnical studies and the mining rate at which the best economic return can be obtained.

60. Planning of an open pit mine is done from the bottom up, after first ascertaining the bottom economic limit of the pit operation. A safe pit slope must be maintained, this involves the excavation of the upper bench or benches beyond the ore limits and into the waste rocks that form the walls of the open pit.

61. In a comparatively shallow mineral deposit a single bench open pit can be employed. Where pit depth is in excess of eight to fifteen metres, more than one bench is usually necessary. With more than one bench the bench width will vary according to the size of the excavation and haulage equipment as well as the rock material in the bench face. Widths may be from six to twenty metres.

62. Access to and extraction of the ore is via haulage roads or ramps. In an open pit mine the benches are used as roadways, either forming a spiral to the area being mined or being connected via ramps. Bench widths or berms are also designed to provide protection for men and materials from small slope failures.

63. For income tax purposes, the same general principle concerning the revenue/capital distinction that applies to underground and strip mines also to open cut mines. That is, the cost of establishing a mine is a capital expense while the cost of conducting the extractive process is a revenue expense. However, with open pit mines there is a great diversity in the size and scale of mining. In addition, there are various alternatives as to the exact location where mining will commence. There is no fundamental rule that says that the cost of first accessing the ore in an open pit mine is capital. The answer to this question depends upon the individual mine configuration and different mine configurations result in different outcomes.

64. The taxation treatment of various expenditures in relation to open pit mining was considered by the Supreme Court of Canada in *Johns-Manville Canada Inc v. The Queen* 85 DTC 5373. In this case the court decided that the on-going costs of acquiring land surrounding an open pit mine to maintain a proper slope for economic and safety reasons were revenue expenses.

65. In the course of its decision the Supreme Court of Canada referred (by analogy) to a mining operator faced with the presence of a body of water such as a lake above an ore body. The court said that the removal of the water to lay bare the minerals on the floor of the lake could hardly be seen as creating an asset. The cost of pumping would not be an expenditure that would create an asset.

66. The Supreme Court also stated at 5384 that:

> 'In the mining industry, where the undertaking is underground mining with its associated assets such as vertical shafts and horizontal transportation elements not created directly by the removal of commercial ore, the tax treatment of capitalization is invoked. On the other hand, open pit or strip mining requiring none of these fixed facilities leads to the attribution of the associated expenditures to the revenue account!
>
> However, the Court recognize in its analysis of facts at 5382 that:

> 'to the extent that the wall of the cone (in an open pit mine) is used for haulage of materials from the bottom of the pit on temporary roads, there may be some transitional asset created'.

67. In open pit mines it is the cost of construction of the access or haulage road from the surface to the first point of contract with ore that is to be extracted and sold, either as is, or after further treatment, that may be a capital expense. Whether or not it is a capital expense depends upon the size of the open pit and the location of the haulage road. The cost of removal of overburden above the ore is part of the method of extraction and is a revenue expense.

68. In some cases the open pit mine may be quite short lived. With some bauxite deposits, the ore is sometimes located in numerous small shallow pods which are close to the surface and are worked out one by one. The bauxite is extracted by means of front-end loaders, working with adjacent primary crushers. After the removal and setting aside of the top-soil, the bauxite is accessed directly. Each deposit of bauxite is small and quickly exhausted, usually within one or two years. In this situation the cost of removal of overburden and the cost of constructing haulage roads into each pit would be revenue expenditure.

69. In the larger open pit mines, the location and permanence of the haulage roads assumes some importance. Where the decision is taken to construct the haulage road in the center of, or within the perimeter of, the lode, and this could be dictated by the economics of winning the richest ore first, the road would have a short life and would be subsequently consumed by further mining operations to extract ore from beneath the road or from the immediate vicinity of the road. In this situation, the cost of removal of overburden and the cost of constructing the haulage road would be revenue expenditure. The cost of constructing the haulage road would have as one of its purposes the future extraction of ore beneath the road.

70. On the other hand the cost of constructing a haulage road outside the perimeter of the ore body, through country rock to first access the ore that is to be sold, either as is, or after further treatment, is a capital expense. This cost does not serve a dual purpose of removing overburden from above the ore to allow for its future extraction. Rather it is incurred in constructing a road that will not be in the path of future extractive operation and which will usually have a long life.

71. In relation to the situation in the above paragraph, a factor that often causes complications is that the construction of the haulage road around the outer perimeter of the ore body and the removal of overburden from the above the ore body are performed in the one operation. Costs are being incurred for a dual purpose, ie. to create a mine constructing the initial haulage road down to the valuable ore

body and removing overburden from above the ore body to allow for its extraction. It is here that a pragmatic approach is needed to apportion the expenditure between the capital costs of constructing the haulage road and the costs of overburden removal as part of the extractive process.

72. If a 'bird's eye' view is taken of an open pit mine the existence of the haulage road would be clearly apparent. Haulage roads are usually between six to twenty metres in width and either spiral around the outside perimeter of the pit or zigzag down one side or face of the pit. Upon reaching the level where the first extraction of ore is to take place the haulage road flattens out and extends to the base of the first extraction bench. The cost of constructing the haulage road would equate with the cost of removing all the necessary overburden above the actual haulage road.

73. If only a haulage road was being constructed, the inside slope of the cut would have to be at a certain angle to allow for the safe construction of the road. In practice this slope is removed as part of the process of extraction. Where expenditure has a dual purpose the principle in the *Denison Mines* case (discussed in paragraphs 31 to 33 above) would apply to treat all the expense as a revenue expense. This would leave only the necessary overburden actually above the road and the outside slope of the pit as overburden relating solely to the construction of the road.. The cost of removing this overburden is capital expense.

74. The cost of removing any remaining overburden not associated with the construction of the haulage road and being physically above the ore body would be a cost incurred in exposing the ore body and part of the method of extraction that is open pit mining. The cost incurred in removing this overburden is a revenue cost.

75. It is only the initial cost of constructing the haulage road through country rock from the surface to the ore body where mining is to commence that is a capital expense. Any extension of the open pit including the extension of the haulage road would be incurred in following the ore body and would be part of the continuous operations of the mine and a revenue expense (similar to the extension of the decline in the *Mount Isa* case discussed in paragraphs 37 to 42 above). Of course any costs incurred in improving the quality of the haulage roads such as, drainage or surface improvements could be capital expenditure.

Examples

Examples 1

76. XYZ Mining NL carries on underground mining at various levels. It constructs a horizontal drive of about 100 metres to access a particular valuable ore body. The drive is constructed over a number of years and extraction of the ore is by stoping. No haulage trucks use the drive, the ore being removed from the stopes by a front end loader and discharged down a pass. The drive will have no further use after the extraction of the ore body and this is expected to take about six years.

77. The cost of constructing the drive is a capital expense. It is not part of the extraction process but rather it is an extension of the mine itself, it is providing access to a new ore body that will last for six years. The drive is not an excavation that has to be regularly extended as a result of the continuous removal of ore in its immediate vicinity.

Example 2

78. A mining company extracts coal using the strip mine method. Because of the depth of the coal seam it is necessary to construct a bench from which the dragline can be access the top of the seam. The construction of the bench involves a pre-stripping operation that removes about 25 metres of overburden.

79. The cost of the pre-stripping and the cost of the overburden removals are revenue expenses. They are both part and parcel of the extractive process to obtain coal. The revenue nature of the pre-stripping cost do not change notwithstanding that the pre-stripping may occur considerably in advance of the dragline removing the overburden. It is the purpose for incurring the expenditure that gives it its revenue nature.

Example 3

80. ABC Mining NL incurred costs to construct an open pit to extract valuable ore. The top of the pit has a diameter of 220 metres that includes a haulage road 10 metres wide around the outside perimeter of the ore body. The ore body is contained in a shallow vein at a depth of 60 metres and is cylindrical in shape having a width of 120 metres. The haulage road meets the ore body at the perimeter of the pit at the 60 metre level.

81. In this particular example the percentage of overburden removal costs that are incurred in getting down to the ore body that represent costs incurred in constructing the haulage road is 9.3%. The

calculation is made having regard to the volume of the total overburden to be removed and comparing this to the amount that would have been removed if the pit did not contain any haulage roads. The formula for determining the volume of a cone is 1/3r x h, where 'r' is the radius and 'h' the height. Allowance has to be for the fact that not all the overburden above the haulage road is removed, rather only sufficient overburden is removed to create the required angle of incline needed for the haulage trucks.

Your Comments

82. If you wish to comment on this Draft Ruling, please send you comments by: 20 September 1995 to:

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Detailed contents list

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Commissioner of Taxation
9 August 1995

Previous draft:
Previously released in draft form as TD 94/D7

Related Rulings/Determinations:
TR 92/20; TD 94/D7

Subject references:
- mining
- mining and petroleum industry cell
- mining companies
- mining industry
- mining operations

Legislative references:
- ITAA 51 (1)
- ITAA 122
- ITAA 122 (1)
- ITAA 122 DG
- ITAA 122 DG(3)(b)
- ITAA Pt III Div 10

Case references:
- Bonner v. Basset Mines Ltd (1912) 6 TC 146
- Coltness Iron Company v. Black (1881) 1 TC 287
- Denison Mines Limited v. MNR 74 DTC 6525
- FC of T v. Ampol Exploration Limited 86 ATC 4859;18ATR 103
- Hallstroms Ptt Ltd v. FC of T
- Johns-Manville Canada Inc v. The Queen 85 DTC5373
- MNR V. Bethlehem Copper Ltd 74 DTC 6520
- MNR v. The McLean Mining Co Ltd 70 DTC 6368
- Mount Isa Mines Ltd v FC of T 91 ACT 4154;21 ATR 1294
- Robert Addie v Solicitor of Inland Revenue [1875] 2 SC 431
- Sun Newspapers Limited v. FC of T (1938) 61 CLR 337

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