IT 2110 - Deductions for expenditure on plant used in processing low grade copper ore

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TAXATION RULING NO. IT 2110

DEDUCTIONS FOR EXPENDITURE ON PLANT USED IN PROCESSING LOW GRADE COPPER ORE

F.O.I. EMBARGO: May Be Released

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I 1121908	MINING, ALLOWABLE CAPITAL EXPENDITURE, TREATMENT	DIVISION 10 122 (1) 122A(1)(b)

PREAMBLE Advice has been sought from this office on the extent to which capital expenditure incurred by a mining company on plant installed at the mine site and used in processing a low grade copper bearing ore stockpiled at the mine site qualifies as allowable capital expenditure in terms of paragraph 122A(1)(b) of the Income Tax Assessment Act 1936. Resolution of the matter required consideration of the extent to which the various processes involved constituted "treatment" as that term is defined in sub-section 122(1).

2. The principal copper minerals in the ore were malachite, a hydrous carbonate of copper, azurite, a basic copper carbonate and chrysocalla, a hydrous copper silicate. The processes through which the ore passes may be described broadly as follows:

Crushing :

Ore from the stockpile is delivered in sizes up to two feet in diameter. The crusher reduces the size of the ore so that no particle is greater than 12mm diameter.

Roasting :

The crushed ore is roasted in an atmosphere of carbon monoxide and hydrogen at a temperature of 650 deg. C. The main purpose of roasting is to -

(a) dry the ore which originally contains 11% water;

(b) break down the clay properties;

(c) reduce all the copper minerals to small metallic copper spheres.

Grinding :

After roasting the ore is still too coarse for further plant treatment. The ore is then ground fine in a ball mill and stored ready for leaching.

Leaching :

Ground ore and ammonium carbonate solutions are automatically fed to one of two 45 cubic metre leaching tanks. Copper will dissolve in ammonia to form a cupric tetramine complex. During leaching the copper is dissolved from the ore leaving the solids barren of copper.

Filtering :

Once the copper has been dissolved, the ore and the solutions are separated on vacuum filters. The solids are washed free of all soluble copper remaining in the filter cakes and finally washed with water to recover the remaining ammonia. The solids are then slurried and pumped to a tailings dam and the solutions pass forward into storage tanks for evaporation.

Evaporators:

The copper bearing liquors from the filter station are pumped into evaporators where the liquors are heated. Ammonia and carbon dioxide are driven off from the solution. Copper in solution precipitates as black cupric oxide during the process. When all the ammonia and carbon dioxide have been driven off and recovered the solution is then filtered to recover the cupric oxide.

Product Drying and Packaging :

The copper oxide formed in the evaporators is then dried in a rotary dryer and packaged ready for shipment to the market.

RULING 3. Sub-section 122A(1) is, in essence, a definition of allowable capital expenditure for which deductions are allowable under Division 10. Included therein, by paragraph 122A(1)(b), is capital expenditure on plant for use primarily and principally in the treatment of minerals obtained from the carrying on by the taxpayer of prescribed mining operations. "Treatment" itself is defined in sub-section 122(1) to mean -

(a) cleaning, leaching, crushing, grinding, breaking, screening, grading or sizing;

(b) concentration; or

(c) any other treatment applied to a mineral, being a treatment that is applied before concentration or, in the case of a mineral not requiring

concentration, that would, if the mineral had required concentration, have been applied before the concentration;

and, without extending by implication, the processes that are included in this definition, is declared not to include -

(d) sintering or calcining; or

(e) the production of, or processes carried on in connection with the production of, alumina, or pellets or any other agglomerated forms of iron.

4. The operations of crushing, grinding and leaching are clearly "treatment" in terms of the definition. The filtering process was accepted as part of the leaching operation. Expenditure on plant used in the processes qualifies as allowable capital expenditure.

5. Roasting is not specifically mentioned in the definition of "treatment". Although it involves a heating process it has been accepted in the past that roasting is not the same as calcining. In the context of the definition of "treatment" in sub-section 122(1), calcining is seen as a process applied to ore after it has been separated from the ore body. Roasting, on the other hand, is a process undertaken in the course of separating the ore from the ore body - it is an integral part of the processes of crushing, grinding and leaching.

6. Given the functions of the roasting operation and its role in the general processes by which the native copper and copper minerals are separated from the unwanted matter that makes up the mined ore it is accepted that the roasting comes within the alternative stated in paragraph (c) of the definition of "treatment", i.e. it is a process that would, if the mineral had required concentration, have been applied before the concentration. Consequently, capital expenditure on the plant used in the roasting process qualifies as allowable capital expenditure.

7. The remaining processes, i.e. evaporation, product drying and packaging, were not considered to represent "treatment" within the meaning of the definition in sub-section 122(1). The processes result in the production of cupric oxide, an operation which goes beyond the definition of the term "treatment". In as much as the processes involve concentration, it is not concentration by the specified means. Capital expenditure incurred on plant and articles used in the evaporation, product drying and packaging processes would qualify for depreciation deductions.

COMMISSIONER OF TAXATION
12 October 1984

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