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SECTION Subsection 66.1(6) "Canadian exploration expense"
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PRINCIPAL ISSUES: What are the types of expenses that would normally qualify as exploration costs under paragraph (f) of the definition "Canadian exploration expense" in subsection 66.1(6) in the context of a mining project?
POSITION: See attached table.
REASONS: See attached table.

MEMORANDUM NOTE DE SERVICE

DATE February 9, 2022

TO / À Ms. Kamlesh Kumar
Director, Domestic Tax Division
International Large Business Directorate
Compliance Programs Branch

FROM / DE Income Tax Rulings Directorate
Kimberley Wharram
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FILE / DOSSIER 2020-087393

SUBJECT / OBJET: **Updated Mining Expenditure Review Table**

Further to our discussions with Industry Specialist Services and Natural Resources Canada, I am attaching a copy of a revised and updated version of the mining expenditure review table. The table describes expenditures that would normally qualify as exploration costs under paragraph (f) of the definition of Canadian exploration expense (CEE) in subsection 66.1(6) of the *Income Tax Act* (Canada). The table is intended as a guide only. The actual treatment of a particular expense incurred by a taxpayer will depend on the facts relevant to the particular situation and, therefore, may differ from that outlined in this table.

Yours truly,

Kimberley J. Wharram
Manager, Resources Section
Reorganizations Division
Income Tax Rulings Directorate
Legislative Policy and Regulatory Affairs Branch

MINING EXPENDITURE REVIEW TABLE

The purpose of this table is to describe expenditures normally qualifying as exploration costs under paragraph (f) of the definition of Canadian exploration expense (CEE).[1,2]
This table is intended as a guide only. The actual treatment of a particular expense incurred by a taxpayer will depend on the facts relevant to the particular situation and, therefore, may differ from that outlined in this table.

Expenditure	Description of what the expenditure is for	Additional explanation	How should it be classified under current legislation
1) Exploration program planning and design	Planning and design of mineral exploration activities. The objective is to identify or explore target mineral deposits. Decision would have been made already on the geological area and mineral resource[3] of interest.	The exploration program is designed and exploration methods and tools are selected for the purpose of determining the existence, location, extent or quality of a mineral resource in Canada. Initiatives undertaken to secure financing for exploration activities do not qualify.	Paragraph (f) of the definition of CEE.
2) Review of previous exploration results	The review is part of planning and designing an exploration program. It is done by a geologist and would include analysis of surface mapping, subsurface geological models, sampling results, and assessment reports. It would include desktop work such as the compilation and analysis of existing geological, geochemical, geophysical, drilling, geotechnical and other technical data in digital or hardcopy format. The review can also be aimed at mapping and identifying further exploration work that needs to be done.	The review should be thoroughly described and documented.	Paragraph (f) of the definition of CEE.

[1] All references to statutory provisions are to the Income Tax Act (Canada) (the Act). References to classes of assets are to classes described in Schedule II of the Income Tax Regulations.
[2] The definition of CEE is found in subsection 66.1(6) of the Act. In order to qualify as CEE under paragraph (f) of the definition, a mining expense must satisfy the purpose test stated in paragraph (f), i.e. the expense must be incurred "for the purpose of determining the existence, location, extent or quality of a mineral resource in Canada". Paragraph (f) encompasses activities undertaken in the course of (i) prospecting; (ii) carrying out geological, geophysical or geochemical surveys; (iii) drilling by rotary, diamond, percussion or other methods, or (iv) trenching, digging test pits and preliminary sampling. The definition of CEE excludes any Canadian development expenses (CDE), as defined in subsection 66.2(5), and any expense related to a mine that has come into production in reasonable commercial quantities or to an extension of the mine.
[3] A mineral resource as defined in the Act in subsection 248(1) includes a base or precious metal deposit, a coal deposit, and mineral deposits described in the definition.

MINING EXPENDITURE REVIEW TABLE

Expenditure	Description of what the expenditure is for	Additional explanation	How should it be classified under current legislation
3) Mineral claims	A claim to the minerals within an area which has been staked on the ground or electronically on a map. Mineral claims are registered in a provincial or territorial mining register.	Mineral claims are Canadian resource property (CRP). The cost of CRP is treated as Canadian development expense (CDE) under paragraph (e) of the definition of CDE.[4]	Paragraph (e) of the definition of CDE.
4) Exploration permits	Permits for exploration are obtained from the relevant province or territory.	Exploration permits are CRP. In certain jurisdictions, the mineral claim is also the permit to carry out exploration work.	Paragraph (e) of the definition of CDE.
5) Community consultations	Community consultations required to obtain exploration permits, including public hearings and information sessions.	Before February 2015, expenses incurred for consultations that were required to obtain exploration rights were treated as CDE under paragraph (e) of the definition of CDE. These consultations are now specifically included in paragraph (f) with effect after February 2015. See guidelines shared with the industry (document 2016-067590217 (E)) for further details. See also interpretation document 2018-0762201E5 (E).	Paragraph (f) of the definition of CEE.
6) Environmental studies	Environmental studies required to obtain exploration permits or conducted in relation to an exploration activity.	Before February 2015, expenses incurred for studies that were required to obtain exploration rights were treated as CDE under paragraph (e) of the definition of CDE. These studies are now specifically included in paragraph (f) with effect after February 2015. See guidelines shared with the industry (document 2016-067590217 (E)) for further details. See also interpretation document 2018-0762201E5 (E).	Paragraph (f) of the definition of CEE.

[4] The definition of CRP is found in subsection 66(15) and the definition of CDE is found in subsection 66.2(5).

MINING EXPENDITURE REVIEW TABLE

Expenditure	Description of what the expenditure is for	Additional explanation	How should it be classified under current legislation
7) Airborne survey/satellite survey	These surveys identify anomalies and reveal geological structures and/or lithologies associated with potential mineralization. They are used to identify targets for exploration and/or mapping at a regional or site level.	These surveys identify targets for further investigation for potential mineral deposits (existence and location). Site-related airborne surveys associated with camp, infrastructure or mine design do not qualify.	Paragraph (f) of the definition of CEE.
8) Prospecting	Locate and document anomalies and outcrops (showings). This helps in determining the existence and location of a mineral resource.	This activity is specifically enumerated in paragraph (f).	Paragraph (f) of the definition of CEE.
9) Soil/rock sampling	Usually the first step of preliminary sampling (soil samples, rock chip samples), preceding trenching and exploration drilling.	Preliminary samples are analysed to determine the quality of a mineral resource. Sampling from mine tailings and related testing would not qualify.	Paragraph (f) of the definition of CEE.
10) Geophysical surveys	Surveys using various techniques, such as gravity or magnetic methods, carried out in the selected area to obtain information on geology and identify targets for further exploration.	The purpose is to determine the existence, extent and location of a mineral resource. Surveys that are carried out for camp, infrastructure or mine design purposes do not qualify.	Paragraph (f) of the definition of CEE.
11) Geochemical surveys	Samples of rock or soil are collected in the selected area and sent for chemical analysis.	The purpose is to determine the existence, location, extent or quality of a mineral resource. Surveys that are carried out for camp, infrastructure or mine design purposes do not qualify.	Paragraph (f) of the definition of CEE.

MINING EXPENDITURE REVIEW TABLE

Expenditure	Description of what the expenditure is for	Additional explanation	How should it be classified under current legislation
12) Geophysical/geochemical interpretation, geological mapping and modeling	Analysis and interpretation or geological mapping and modeling based on survey results and previous exploration results related to the selected area.	The purpose is to determine the existence, location, extent or quality of a mineral resource. Work performed for camp, infrastructure or mine design purposes does not qualify.	Paragraph (f) of the definition of CEE.
13) Exploration drilling by different methods (diamond, percussion, rotary, reverse circulation, or other non-destructive methods)	Drilling for exploration purposes to obtain preliminary samples, including site preparation and post-drilling associated activities such as drill site restoration.	Associated activities would include core logging, analysis, scanning and storage, as well as downhole analysis directly related to current activities to determine the existence, location, extent or quality of a mineral resource. Drilling performed for camp, infrastructure or mine design purposes does not qualify.	Paragraph (f) of the definition of CEE.
14) Mineralogical analysis and assays	Tests associated with the deposit in the ground. Preliminary samples are tested for elemental and mineralogical composition by microscope analysis, x-ray diffraction, fire assays, spectrometry, etc.	Tests and analyses associated with the assessment of the physical, chemical and mechanical characteristics of a mineral resource, using preliminary samples would qualify. Tests associated with mine, mill, or improving recovery rates would not qualify.	Paragraph (f) of the definition of CEE.
15) Laboratory testing of drilling cores, including testing for trace elements	Tests associated with the deposit to determine the grade and mineralogical composition of the mineral resource.	The purpose is to determine the existence, location, extent or quality of a mineral resource. Tests performed for camp, infrastructure or mine design do not qualify.	Paragraph (f) of the definition of CEE.
16) Trenching	Trenches are dug to expose steeply-dipping mineralization from which samples are taken.	This activity is specifically enumerated in the definition of CEE. Digging trenches for camp, infrastructure or mine design purposes would not qualify.	Paragraph (f) of the definition of CEE.

MINING EXPENDITURE REVIEW TABLE

Expenditure	Description of what the expenditure is for	Additional explanation	How should it be classified under current legislation
17) Digging test pits	Same as trenching but in shallow and flat-lying mineralization.	This activity is specifically enumerated in the definition of CEE. Digging for camp, infrastructure or mine design purposes would not qualify.	Paragraph (f) of the definition of CEE.
18) Resource estimation and deposit delineation	Tests and analysis associated with the definition of the deposit in the ground.	Used to determine the location, spatial distribution, extent and quality of the mineral resource. Activities for reserve estimation are not eligible when they involve modifying factors such as processing, economic or social factors, to convert mineral resources into mineral reserves.	Paragraph (f) of the definition of CEE.
19) Definition or infill drilling	Drilling to confirm the presence of mineralization between exploration drill holes, and re-evaluate the classification of a mineral resource.	Drilling holes closer together helps determine the location and extent of a mineral resource. Drilling associated with camp, infrastructure or mine design would not qualify.	Paragraph (f) of the definition of CEE.
20) Deposit modelling and updates of estimates of mineral resources by category	3-D computer modelling uses data obtained from sampling activities to determine configuration, spatial distribution and continuity of a mineral resource. Serves to separate mineral resource from waste within a mineral deposit and update estimates of mineral resources.	Determination of the configuration, spatial distribution and continuity of the deposit is an essential component of the determination of the location, extent and quality of a mineral resource.	Paragraph (f) of the definition of CEE.
21) Testing of mineral resource and host rock stability/mechanical properties	Testing (on or off site) of the mechanical properties of the mineral resource and host rocks to determine if mining is technically feasible. This includes evaluation of strength and porosity of the mineral resource.	Assessment of mechanical properties helps determining the quality of the mineral resource. Tests performed for camp, infrastructure or mine design purposes would not qualify.	Paragraph (f) of the definition of CEE.

MINING EXPENDITURE REVIEW TABLE

Expenditure	Description of what the expenditure is for	Additional explanation	How should it be classified under current legislation
22) Testing of mineral resource dilution	Dilution is the amount of waste that will be mixed with the mineral resource as a result of extraction.	Testing of the physical material extracted from the preliminary sample, on or off site, helps determining the quality of the mineral resource. Tests performed for camp, infrastructure or mine design purposes would not qualify.	Paragraph (f) of the definition of CEE.
23) Metallurgical testing – Grinding or other physical tests performed on core sample and/or bulk sample	Testing of the physical material of the deposit, on or off site. Grinding tests evaluate ore breakability and hardness of the mineral resource and determine particle liberation size.	This serves to determine how difficult it will be to separate pay minerals from waste or contaminants, which is another component of the determination of the quality of the mineral resource. However, if testing is associated with camp, infrastructure or mine design, it would not qualify.	Paragraph (f) of the definition of CEE.
24) Metallurgical separation testing performed on core sample and/or bulk sample (e.g., cyclone separation, gravity, flotation, cyanidation, solvent extraction, electro-winning, calcination, roasting) to determine recovery rate from separation	Samples are tested, on or off site, to determine the chemical properties of the resource. Metallurgical testing by separation processes is required to determine actual percentage of mineral contained in the ore that can be recovered.	Core and other preliminary samples are tested to determine the quality of the mineral resource. Determination of the recovery rate evaluates the actual losses of pay material that are inherent with the separation process. Losses could occur as a result of the inability to separate pay minerals from contaminants or waste material. As such, it is a component of the determination of the quality of the mineral resource. See Ruling 2014-0534121R3 (E).	Paragraph (f) of the definition of CEE. Metallurgical testing would qualify under paragraph (f) if it is undertaken for determining whether any processing method is feasible for separating the pay minerals/metals from the resource. However, if the testing is performed for determining an optimal method of separation (maximizing value from processing, refining the established processes to increase project value, etc.), it will not qualify.[5]

[5] Usually pilot plant testing will not qualify under paragraph (f).

MINING EXPENDITURE REVIEW TABLE

Expenditure	Description of what the expenditure is for	Additional explanation	How should it be classified under current legislation
25) Bulk sampling (reasonable sizes)	Purpose: - Determine the effective grade (dilution). - Perform grinding tests. - Determine whether any separation process (e.g. flotation or solvent extraction) allows minimum quality specifications.	Can be part of preliminary sampling if the expenses are not CDE (i.e. if they are not incurred for the purpose of bringing a new mine into production) and if they are not related to an existing mine or the extension of an existing mine.	Would qualify under paragraph (f) of the definition of CEE if the purpose is to test the physical, chemical and mechanical characteristics (see Rulings 2006-0211941R3 (E)). However, if the purpose is to evaluate the optimal processing method, it will not qualify.
26) Preliminary economic assessment (PEA) (scoping study)	A PEA is a study, other than a pre-feasibility or feasibility study, that includes an economic analysis of the potential viability of mineral resources.[6] A PEA can be based on measured, indicated, or inferred mineral resources. A PEA includes forecast production rates, capital costs, operating costs, cash flows, etc.	The preparation of a PEA, including the collation of data and the analysis of the project, does not meet the purpose test of paragraph (f). See guidelines shared with the industry (document 2016-067590217 (E)) for further details on feasibility studies generally.	Generally an operating expense under section 9.

[6] PEA is defined in National Instrument 43-101, Standards of Disclosure for Mineral Projects (NI 43-101). NI 43-101 was developed by the Canadian Securities Administrators and requires mining issuers to file in specified circumstances technical reports prepared and certified by qualified persons. Technical reports include the results of a preliminary economic study, a pre-feasibility study or a feasibility study. Technical reports are publicly available on SEDAR.

MINING EXPENDITURE REVIEW TABLE

Expenditure	Description of what the expenditure is for	Additional explanation	How should it be classified under current legislation
27) Pre-feasibility studies (PFS) and feasibility studies (FS)	A PFS is a study of a range of options for the technical and economic viability of a mineral project that has advanced to a stage where a preferred mining method is established and an effective method of mineral processing is determined. A FS is a technical and economic study of the selected development option for a mineral project.[7] A PFS includes a financial analysis based on various factors (mining, processing, metallurgical, economic, marketing, legal, environmental, infrastructure, social and governmental) sufficient to determine if all or part of the indicated and measured mineral resources may be converted into mineral reserves.	A FS is at a higher confidence level than a PFS. The preparation of a PFS or FS, including the collation of data and the analysis of the project, does not meet the purpose test of paragraph (f). Under certain circumstances, activities eligible under paragraph (f) may occur after the preparation of a FS to increase the level of geological knowledge and confidence in the mineral resource. See guidelines shared with the industry (document 2016-067590217 (E)) for further details on feasibility studies generally.	Generally an operating expense under section 9.
28) Mining engineer's costs to help establish unit cost of mining and processing	Costing studies to assess the economic viability of the project or prepare shareholder information.	Goes beyond the determination of the quality of a mineral resource. The result of the work is an economic analysis and a report for management.	Generally an operating expense under section 9.

[7] PFS and FS are defined by the Canadian Institute of Mining, Metallurgy and Petroleum (CIM). The CIM Definition Standards for Mineral Resources & Mineral Reserves (2014) are available at: https://mrmr.cim.org/en/standards/canadian-mineral-resource-and-mineral-reserve-definitions. CIM definitions are incorporated, by reference, into NI 43-101.

MINING EXPENDITURE REVIEW TABLE

Expenditure	Description of what the expenditure is for	Additional explanation	How should it be classified under current legislation
29) Mine design studies/mine development studies	Development of technical specifications of the different components of the mine workings and equipment and related infrastructures.	Assessment of mine development options and/or profitability of developing the deposit into a mine goes beyond the determination of the quality of a mineral resource. Expense is normally part of the feasibility studies.	The expenditure would not qualify under paragraph (f) of the definition of CEE. The cost could be: - an operating expense under section 9 (for example, if incurred before a decision is made to bring the mine into production) - CDE under paragraph (c.2) of that definition, i.e. an expense for the purpose of bringing a new mine into production (formerly paragraph (g) of the definition of CEE) - Class 41 or 41.2 asset - Class 14.1 if the property is not acquired.
30) Evaluation of transportation from the mine to the processing plant	Identification and evaluations of transportation methods; estimate of capital and operating costs for each method.	Goes beyond the determination of the quality of a mineral resource.	The expenditure would not qualify under paragraph (f) of the definition of CEE. The cost could be: - an operating expense under section 9 if for determining economic viability - depreciable property of a prescribed class - Class 14.1 if the property is not acquired.

MINING EXPENDITURE REVIEW TABLE

Expenditure	Description of what the expenditure is for	Additional explanation	How should it be classified under current legislation
31) Evaluation of different technically feasible options for processing methods	Evaluation of various milling methods to identify the optimal method. Metallurgical testing undertaken for determining an optimal method of separation (how to maximize separation).	Goes beyond the determination of the quality of a mineral resource. Most evaluations are for the purpose of determining the economic viability/profitability of the project so these costs would be incurred before a decision to bring the mine into production has been made.	The expenditure would not qualify under paragraph (f) of the definition of CEE. The cost could be: - an operating expense under section 9 (incurred before a decision is made to bring the mine into production) - Class 41 or 41.2 asset (e.g., detailed engineering of a particular asset could be included in the cost of the property). - Class 14.1 if the property is not acquired.
32) Process engineering studies (detailed separation process flow sheets, schedules to bring the ore to marketable product stage)	Elaboration of detailed process flow sheets, construction schedules, etc., for costing purposes.	The activities are for the development of the processing and production method and do not meet the purpose test in paragraph (f).	The expenditure would not qualify under paragraph (f) of the definition of CEE. The cost could be: - an operating expense under section 9 if for determining economic viability - Class 41 or 41.2 asset - Class 14.1 if the property is not acquired.
33) Financial estimates of capital and operating costs of the mine	Costing studies to assess mine development options and/or profitability of developing the deposit into a mine. The detailed engineering work involved may relate to mine or equipment design.	Does not directly relate to work on the mineral resource itself or the determination of its existence, location, extent or quality.	The expenditure would not qualify under paragraph (f) of the definition of CEE. The cost could be: - an operating expense under section 9 if for determining economic viability or reporting - CDE under paragraph (c.2) of that definition, i.e. an expense for the purpose of bringing a new mine into production (formerly paragraph (g) of the definition of CEE) - Class 41 or 41.2 asset - Class 14.1 if the property is not acquired.