Glossary

Terminology in this Application for an Environmental Assessment Certificate/Environmental Impact Statement is defined where it is first used. The following list will assist readers who may choose to review only portions of the document. The italicized terms in definitions are defined elsewhere in this Glossary.

Objectives, guidelines or standards for maximum *criteria air contaminant* Air quality criteria

concentrations in the atmosphere, developed to ensure long-term

protection of public health and the environment.

Acid rock drainage Acid rock drainage occurs when minerals containing sulphide and elemental

> sulphur are exposed to oxygen and water, thus oxidizing and increasing their acidity and that of the receiving water body or drainage, depending on

conditions (Price and Errington 1998).

Alluvial Deposited by flowing water.

Alternative A functionally different design specification or component location that is

technically and economically feasible for use by the Project.

Ambient air quality The quality of outdoor air in our surrounding environment. It is typically

measured near ground level, away from direct sources of pollution.

Ammonium nitrate and fuel oil (ANFO)

A mixture of ammonium nitrate and fuel oil used extensively as a blasting

agent in mining and quarrying.

Anemometer Instrument for measuring air velocity (MBA Training Company n.d.).

Application for an

Application for an Environmental Assessment Certificate pursuant to BC's Environmental Environmental Assessment Act (2002a) and Environmental Impact Statement

pursuant to the Canadian Environmental Assessment Act (1992).

Assessment Certificate/ **Environmental Impact** Statement

(Application/EIS)

Application Information A document which identifies the information that is needed to complete the Requirements (AIR) provincial and/or federal environmental assessment processes. The document

> outlines the information that will be included in the Application for an Environmental Assessment Certificate/Environmental Impact Statement.

Archaeological Impact Assessment (AIA)

An assessment carried out under a Heritage Conservation Act (1996) Heritage Inspection Permit to determine the impact of a development on

archaeological sites.

Archaeological **Overview Assessment**

(AOA)

An assessment intended to identify and assess archaeological resource potential or sensitivity within a proposed study area. Recommendations concerning the appropriate methodology and scope of work for subsequent inventory and/or impact assessment studies are also commonly included.

Archaeological site Location where there is evidence of human activity. The Heritage

Conservation Act (1996) automatically protects all archaeological sites, whether on provincial Crown or private land, that predate AD 1846. Burial sites and rock art sites are protected regardless of age.

PRETIUM RESOURCES INC. Glossary 1 Archaeological Chance Find Procedure Document detailing the steps that must be followed if an archaeological site

is uncovered during ground altering activities.

Archaeology Branch The Archaeology Branch of the British Columbia Ministry of Forests, Lands

and Natural Resource Operations that administers the Heritage Conservation

Act (1996).

Bacterioplankton Free-floating aquatic microbes that obtain energy from the degradation of

organic matter or the oxidation of compounds and metals.

Baghouse Air pollution control device that removed dry particulate from a gas stream

of air or combustion gas using fabric filters.

Baseflow The component of flow discharge that is attributed to soil moisture and

groundwater drainage into a channel.

Baseline condition Pre-disturbance or pre-construction environmental setting; dataset used for

comparison to assess changes in the environment resulting from Project

activities.

Baseline studies Scientific investigations that determine the present state of an area and

establish the basic reference necessary for further studies.

Bedrock Solid rock that underlies sediments, soils, softer rocks, or other

unconsolidated materials (US Geological Survey n.d.).

Benthic invertebrate Non-vertebrate animal living within or near the bottom sediments of a

waterbody.

Bioaccumulation factor Ratio of tissue chemical residue to chemical in concentration in an external

environmental phase (i.e., water, sediment, vegetation, or food).

Bioavailability The portion of the total quantity or concentration of a chemical in the

environment or a portion of it that is potentially available for biological action, such as uptake by an aquatic or terrestrial organism (Rand 1995).

Biomass The quantity of organic matter contained in organisms.

Block cave mining A low cost bulk underground mining method in which the block of ore to be

mined is undercut by drilling and blasting. Drawbells excavated beneath the

undercut are used to extract the broken ore.

Borden Number Each archaeological site in Canada is issued a unique, site-specific alpha-

numeric identifier (Borden Number) using the Borden System. Canada is divided into a series Borden Blocks each roughly 16 by 16 km with a four letter designation. The first two letters, one capital and one lowercase letter, indicate the north-south location of the Borden Block, while the second two letters indicate the east-west location (i.e., AbCd). The four letter alpha segment is then followed by a number (i.e., AbCd-10) which is

issued sequentially as sites are found within a Borden Block.

B-train A mode of transporting bulk materials consisting of a truck (or tractor)

pulling two interconnected trailers.

Canadian Council of Ministers of the Environment (CCME) CCME is comprised of the environment ministers from the federal, provincial, and territorial governments. These 14 ministers normally meet at least once a year to discuss national environmental priorities and determine work to be carried out under the auspices of the CCME. The Council seeks to achieve positive environmental results, focusing on issues that are national in scope and require collective attention by a number of governments.

Carbon monoxide (CO)

A colourless, odorless gas emitted from combustion processes. It can cause harmful health effects by reducing oxygen delivery to the body's organs and tissues.

Carbon dioxide (CO₂)

A colourless, odorless gas emitted from combustion and respiration processes. It is an important greenhouse gas with a global warming potential value of one.

 CO_2e

Carbon dioxide equivalency describes the amount of CO_2 that would have the same global warming potential as a given amount of another greenhouse gas (e.g., 1 kt CH_4 = 21 kt CO_2 e).

Cause-effect pathway

Cause-effect pathway refers to the relationship between the Project component/physical activity that is causing the change or effect in the condition of the receptor VC.

Clay

A soil description for extremely fine particles, less than 0.002 mm, exuding little or no water and forming a thread when rolled between the fingers.

Climate

Average weather conditions over a long time period, usually exclusive to one region or area. Climate depicts weather patterns over years, decades, or centuries, whereas meteorology measures day-to-day activities.

Climate change

Statistically significant variation in either the mean state of the climate or in its variability, persisting for an extended period (i.e., decades or longer) that may be due to natural internal processes/external forcing, or to persistent anthropogenic changes in the composition of the atmosphere or in land use.

Closure phase

The third phase of the Brucejack Gold Mine Project, expected to last two years, during which time Project facilities that are no longer required will be decommissioned and reclaimed.

Colluvial

Deposits formed by gravity-transported material.

Comminution

The crushing and pulverizing of ore to prepare for the process of separation of valuable minerals from matrix rock.

Committee on the Status of Endangered Wildlife in Canada (COSEWIC) Committee that assesses the status of species and recommends to the government those species that should be listed as at risk under the federal *Species at Risk Act* (2002b).

Concentrate

The product of ore processing.

Confidence

Confidence, which can also be thought of as scientific uncertainty, is a measure of how well residual effects are understood, which includes a consideration of the acceptability of the data inputs and analytical methods used to predict and assess Project effects.

PRETIUM RESOURCES INC.

Construction phase The first phase of the Brucejack Gold Mine Project, expected to last

approximately two years.

Contact water Water includes all water that is collected for treatment at the WSF.

Contaminants of potential concern (COPC)

Critoria Air

Chemical substances identified through a screening process that may have the

potential to cause adverse effects in receptors.

Criteria Air A group of pollutants which cause air issues such as smog and acid rain. CACs Contaminants (CACs) include the following pollutants; sulphur oxides (SO_x) , nitrogen oxides (NO_x) ,

various size fractions of particulate matter (PM), volatile organic compounds

(VOC), carbon monoxide (CO), and ammonia (NH₃).

Crusher A machine for crushing rock to create smaller particle sizes for transportation

or processing.

Culturally Modified

Tree (CMT)

A CMT is a tree that has been altered by Aboriginal people. For the purpose of

this report, only CMTs predating 1846 alterations are considered.

Cumulative change See *cumulative effect*.

Cumulative effect An effect that arises as a result of an effect from the Project interacting

with residual effect(s) from another activity to create a cumulative

effect(s).

Cumulative impact See *cumulative effect*.

Cut-and-fill An underground mining technique used in steeply-dipping or irregular ore

zones, in particular where the hanging wall limits the use of long-hole

methods.

Cyanidation A hydrometallurgical gold extraction technique commonly used at hard-rock

gold mines to separate gold or other minerals from rock matrix.

Decommissioning The process of removing facilities from service and the dismantling of

buildings.

Deposit A deposit is a body of a useful mineral or an ore in sufficient extent and

degree of concentration to invite mining.

Dimictic Describes a lake that is stratified for most of the annual cycle and mixes

twice per year in the spring and fall.

Drainage The process of removing surplus ground or surface water either by artificial

means or by gravity flow (MBA Training Company n.d.).

EA Working Group A forum for discussion and resolution of technical issues associated with the

proposed Project, as well as providing technical advice to the BC EAO and

CEA Agency, which remain ultimately responsible for determining significance. Comprises representatives of provincial, federal, and local

government, and Aboriginal groups.

Ecosystem A volume of earth-space that is composed of non-living parts and living or

biotic parts, which are all constantly in a state of motion, transformation,

and development.

Effect The specific consequence (to a resource/receptor) arising from an

alteration of existing conditions caused by the Project.

Electoral Area A of the Regional District of **Bulkley-Nechako** (RDBN)

The major community in the RDBN's Electoral Area A is the Town of Smithers.

Emissions

Solid or gaseous pollutants released from point sources or fugitive sources, including greenhouse gas.

Embedded Controls

Embedded controls are physical or procedural controls that are planned as part of the Project design (i.e., not added solely based on a mitigation need identified by the effects assessment process).

While embedded controls may effectively serve to mitigate effects just as mitigation measures do, they are distinguished from mitigation measures in that effect significances are assigned for the Project including embedded controls (i.e., as opposed to assigning them based on a hypothetical version of the Project with no such controls), and residual effect significances are assigned based on a consideration of the Project including embedded controls and additional mitigation measures that are declared during the IA Process. It is best practice to include both embedded controls and mitigation measures in the Project management plan, as it is important to

ensure implementation of both.

Environment

The environment includes both the natural and socio-economic environments, as defined under Paragraph 2 of the Canadian Environmental Assessment Act (1992).

Earth's components, including land, water, air, and all layers of the atmosphere. The environment includes all organic and inorganic matter, other living organisms, and the interaction natural systems of such, including cultural and social components.

Environmental Assessment (EA) process

The process of assessing the environmental, economic, social, heritage, and health effects of a proposed development.

Euphotic zone

The sunlit volume of water near the surface of a waterbody with sufficient light to sustain the growth of primary producers.

Eutrophic

A body of water with high abundances of primary producers and high concentrations of nutrients (Wetzel 2001).

Explosive

Any rapidly combustive or expanding substance, the energy release from which can be used to break rock.

Exposure

The degree of contact of organisms to a chemical or physical agent.

Fluvial

Sediments deposited by flowing water, including glaciofluvial deposits.

Fossil fuel

Any naturally occurring fuel of an organic nature, such as coal, oil, and

natural gas.

Freshet

In channels, the relatively high annual peak water discharge period resulting from spring/summer meltwater runoff of the snowpack accumulated over the winter.

Fugitive dust

Particulate matter, often sand or mineral dust, released to the atmosphere by mechanical disruption or by wind scouring.

PRETIUM RESOURCES INC.

Geographic Information

System (GIS)

Mapping tool used to depict large amounts of information in a spatial

context.

Geohazard Landslide or snow avalanche process with the potential to result in some

type of undesirable outcome.

Geohazard risk Likelihood of a geohazard scenario occurring and resulting in a particular

severity of consequence, defined in terms of economic, environmental,

safety, or reputation loss.

Glaciation The erosive action exercised by land ice upon the land over which it flows.

Glaciofluvial Material moved by glaciers and subsequently deposited by streams flowing

from the melting ice. The deposits may be unsorted or sorted.

Global climate change Usually refers to the gradual warming of the earth due to the greenhouse

effect. Many scientists believe this is the result of man-made emissions of greenhouse gases such as carbon dioxide, chlorofluorocarbons and methane.

Greenhouse effect The natural phenomenon that occurs when atmospheric gases trap radiated

heat in the atmosphere. The greenhouse effect keeps the atmosphere warm

and makes life on earth possible.

Greenhouse gases

(GHGs)

Gases that trap the sun's heat, creating a greenhouse effect that keeps the earth warm and sustains life. However, as GHGs increase in the atmosphere, more heat is trapped, which causes global climate change. GHGs include carbon dioxide (COs), methane (CHs), nitrous oxide (NsO), sulphur

carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), sulphur hexafluoride (SF_6), water vapour (H_2O), ozone (O_3), water vapor,

hydrofluorocarbons, and perfluorocarbons.

Grizzly Course screening or scalping device that prevents oversized bulk material

from entering a material transfer system.

Groundwater Water stored in soil or rock.

Habitat Land and water surface used by wildlife. May include biotic and abiotic

aspects such as vegetation, exposed bedrock, water, and topography.

Heritage Conservation

Act (HCA)

The provincial law that authorizes and mandates British Columbia to

manage heritage resources.

Horizon In geology, any given definite position or interval in the stratigraphic

column or the scheme of stratigraphic classification; generally used in

a relative sense (MBA Training Company n.d.).

Human action A human action is defined as a project or activity (CEA Agency 1999).

Projects are typically some form of commercial or industrial development that is planned, constructed, and operated (e.g., a mine or a resource access road); activities are the other actions of humans in an area, such as

public highway traffic, hiking, and hunting.

Human health risk

assessment

A process used to estimate the nature and probability of adverse health effects in humans exposed to chemicals in environmental media, now or in

the future.

Hydrocarbon A class of compounds containing hydrogen and carbon formed by the

decomposition of plant and animal remains, including coal, mineral oil, petroleum, natural gas, paraffin, fossil resins, and solid bitumens occurring

in rocks (MBA Training Company n.d.).

Hydrograph A graphical plot of water discharge versus time

Hydrology The movement and distribution of water.

Hypolimnion Dense bottom layer of water in a thermally stratified lake.

Intermediate Component A specific attribute of the biophysical environment that if affected either positively or negatively, would act as a pathway to pass on those changes to

receptor Valued Components.

Highway 37 A 725-km long two lane hard surface public highway connecting Highway 16

mid-way between Smithers and Terrace near Gitwangak (Kitwanga) to the

Yukon border.

Highway 37A A two-lane hard surfaced public highway that extends from the

Canada/United States boundary at Stewart to the junction with Route 37 at

Meziadin Lake.

Hydrology The movement and distribution of water.

Impact Any alteration of existing conditions, adverse or beneficial, caused directly

or indirectly by the Project. An impact may or may not lead to one or more

effects.

Intake The passage through which fresh air is drawn or forced into a mine or to a

section of a mine (MBA Training Company n.d.).

Ion exchange A water treatment method that involves water clarification and purification

typically through selectively removing charged inorganic species from water

using an ion-specific resin.

Issues scoping A process of compiling and analyzing available information to identify

environmental, economic, social, heritage and health issues that may be related to the Brucejack Gold Mine Project. These Project-specific issues are generally indicative of the local and regional values held by the public, Aboriginal groups, and other stakeholders in the Project area. They also reflect issues of concern to the scientific community or to government

(BC EAO 2013a).

Lentic Standing or relatively still water (e.g., lakes, ponds, and swamps).

Lotic Moving water (e.g., rivers, creeks, and streams).

Limnology The description and study of freshwater systems, including lakes, streams,

and rivers.

Lithics The material created during stone tool manufacturing.

Long-hole open stoping An underground mining technique used for vertical or steeply-dipping ore

bodies with regular boundaries.

Mesic Water removed somewhat slowly in relation to supply; soil may remain

moist for a significant, but sometimes short, period of the year. Available

soil moisture reflects climatic inputs.

APPLICATION FOR AN ENVIRONMENTAL ASSESSMENT CERTIFICATE / ENVIRONMENTAL IMPACT STATEMENT

Mesotrophic A body of water with a moderate amount of dissolved nutrients and primary

producers (Wetzel 2001).

Metal leaching Metal leaching is associated with acid rock drainage due to high solubility of

metals and sulphide weathering rates under acidic conditions.

Mitigation measure A feature, procedure or other action that the Project commits to implement

to avoid or reduce the magnitude of an adverse effect, or to enhance the

magnitude of a positive effect.

Morainal See till.

Mount Edziza A volcano in northwestern BC that is a source of obsidian (a lithic material

used in stone tool manufacture).

n.d. No date. Used for citing publications that do not indicate a publication date.

National Topographic System (NTS)

A mapping system used by the Natural Resources Canada providing general purpose topographic maps of the country. NTS maps are available in 1/50,000 and 1/250,000 scales and include details on landforms and terrain, lakes and rivers, forested areas, administrative zones, populated areas, roads and railways, as well as other man-made features.

Nitrogen oxide (NO_x) Formed when nitrogen (N_2) combines with oxygen (O_2) in the burning of

fossil fuels, from the natural degradation of vegetation, and from the use of chemical fertilizers. It is a significant component of atmospheric acid deposition and photochemical smog. The primary source of nitrogen oxide

emissions is automobile exhaust (MBA Training Company n.d.).

Non-contact water Includes all natural catchment water that is diverted around the surface

disturbance.

Oligotrophic A body of water that has low concentrations of nutrient and relatively few

primary producers (Wetzel 2001).

Operation phase The second phase of the Brucejack Gold Mine Project, expected to last

22 years, during which ore is mined and processed to produce concentrate

for sale.

Outcrop Bedrock that appears at or near the surface.

Overburden Layers of soil and rock covering a deposit. In surface mining, overburden is

removed using large equipment prior to mining. When mining has been completed, it is either used to backfill the mined areas or is hauled to an

external disposal or storage site (MBA Training Company n.d.).

Particulate matter Tiny pieces of solid or liquid matter associated with the Earth's atmosphere.

Sources of particulate matter can be human-made or natural.

Paste backfill Unclassified mill tailings from initial ore flotation processing are mixed in a

paste plant with adequate cementitious binder to form paste that meets strength requirements to be backfilled into the underground mine spaces.

Periphyton Complex matrix of algae, bacteria, microbes, and detritus that attaches to

submerged surfaces.

Permafrost Soil at or below the freezing point of water 0°C for two or more years.

Most permafrost is located in high latitudes (i.e., land close to the North and South poles), but alpine permafrost may exist at high altitudes in much

lower latitudes.

Permit A document issued by a regulatory agency that gives approval for specified

activities to take place.

Phytoplankton Minute, free-floating aquatic organisms that play an important role in many

aquatic systems as primary producers and prey for other organisms.

PM₁₀ Inhalable particulate matter. PM₁₀ particles are airborne particles that have

a diameter of 10 µm or less and are thus a subset of total suspended

particulate.

 $PM_{2.5}$ Respirable particulate matter ($PM_{2.5}$) particles are a subset of PM_{10} and are

defined as particles with a diameter less than 2.5 µm. These particles are

small enough to enter deep into the respiratory system.

Polycyclic aromatic hydrocarbons (PAHs)

Organic compounds comprised of two or more aromatic rings. These

compounds are by-products of combustion.

Portal The mouth of an adit or tunnel.

Potential effects The potential effects of a proposed project are those effects identified

without taking any mitigation or management measures into account, with the exception of measures that are integral components of the

project design.

Primary producers Organisms capable of using energy derived from light or a chemical

substance to manufacture energy-rich organic compounds from inorganic

nutrients. Primary producers form the base of many foodwebs.

Proglacial Lake A proglacial lake is a lake formed either by the damming action of a

moraine or ice dam during the retreat of a melting glacier, or by meltwater trapped against an ice sheet due to isostatic depression of the crust around

the ice.

Project footprint The Project footprint refers to the area that may reasonably be expected to

be physically touched by Project activities, across all phases. The Project Footprint includes land used on a temporary basis such as construction lay down areas or construction haul roads, as well as disturbed areas in

transport corridors, both public and private.

Public, theThe public is a broad entity that includes people who are not necessarily

affiliated with an interest group, although there is overlap between these

groups.

Receptor An environmental value or feature of the social environment which may be

sensitive to changes in condition as a result of the Project activities.

Receptor Valued Component

A receptor Valued Component (receptor VC) is a receptor along a cause-effect pathway and is a candidate environmental, social, economic, health, or heritage component that the public, scientists, government agencies, Aboriginal groups, or other stakeholders consider important. In accordance to the *Guideline for the Selection of Valued Components and Assessment of Potential Effects*, receptor components are to be the focus of an effects assessment. In the Application/EIS, receptor VC will be used to refer to all candidate components subject to effects for which a determination of significance is made.

Reclamation

The process of restoring land that has been mined to a natural or economically usable purpose. Reclamation operations are usually underway as soon as the deposit has been removed from a mine site. The process includes restoring the land to its approximate original appearance by restoring topsoil and planting native grasses and ground cover.

Regional District of Kitimat-Stikine (RDKS)

The local government of a 100,000 km² area in northwestern British Columbia including the Project area. Member municipalities are Kitimat, Terrace, Stewart, Hazelton, and New Hazelton.

Regional Study Area

Spatial area within which direct and indirect effects are anticipated to occur.

Regulatory Framework

The compendium of requirements with which the Project is required to, and/or has chosen to, comply. This will typically include the following:

- legal requirements (laws, regulations, decrees, etc.);
- international treaties or conventions, including those ratified by the country in which the Project will occur and potentially those nonratified;
- internal corporate standards (e.g., company-specific environmental performance standards, company-specific IA standards);
- o programme requirements (e.g., EHS Guidelines); and
- o policies.

The Regulatory Framework will include two broad types of requirements:

- the requirements that apply to the Project (e.g., to meet a particular emission limit); and
- the requirements that apply to the EA process, consultation, and associated permitting process.

Remote Access to Archaeological Data (RAAD)

A web-based application, maintained by the Province of British Columbia, which enables authorized users to access data housed in the British Columbia Archaeological Site Inventory.

Residual effects

Residual effects are the effects of a project that remain after mitigation and management measures are implemented. Project-specific effects are separate/differentiated from cumulative effects.

Reverse osmosis

A water treatment method that involves using a semi-permeable membrane to purify water of several molecules and ions.

Richness (taxonomic) A description of the abundance of different taxa within a defined,

ecologically relevant area or habitat.

Room and pillar An underground mining technique used for relatively flat or gently sloping

deposits.

Secondary producers Organisms that consume primary producers; in aquatic ecosystems,

secondary producers are primarily invertebrates.

Sediment quality Physical and chemical properties of sediment in streams and lakes.

Shrinkage stoping An underground mining technique used for steeply-dipping, vertical to

sub-vertical narrow ore bodies with self-supporting walls and ore.

Significance Significance is defined as a measure of the degree or severity of direct and

indirect effects caused to human, social, heritage, environmental, and

economic components by the Project.

Silt A soil description for fine particles between 0.06 and 0.002 mm.

Snow avalanche A sudden, drastic flow of snow down a slope.

Spatial boundaries Spatial boundaries consider the potential geographic or physical extent of

change generated by the project, as related to a specific assessment topic

or valued component.

Stage The depth of water in a watercourse or channel

Stakeholders Stakeholders are interest groups whose interests could be affected by the

project and its associated activities. Stakeholders do not include treaty and non-treaty First Nations, but generally include land-user groups with

interests or tenures in the project area.

Stope Stoping is the process of extracting the desired ore or other mineral from an

underground mine, leaving behind an open space known as a stope.

Subaqueous deposition Disposal of waste rock or tailings through placement submerged below

water, which is a preferred means of disposal to limit potential *metal*

leaching and acid rock drainage (MLARD).

Sulphur dioxide (SO₂) Fossil fuel that contains a small amount of sulphur-containing organic

compounds. During fuel combustion, the sulphur is oxidized and emitted as SO_2 gas with the engine exhaust. In the atmosphere, SO_2 can further oxidize

to sulphate, which contributes to acid deposition.

Tailing Tailing is a mixture of water and finely ground rock that is left over once the

valuable minerals are removed by processing of the ore.

Taxon A label for a group of organisms that are related and share relevant life-

history, physiological, or ecological traits.

Temporal boundaries Temporal boundaries are the time periods considered in the assessment,

which take into account the phases of the Brucejack Gold Mine Project and

the timelines of other human actions.

Temporal scope The time period over which Project activities may cause an effect.

PRETIUM RESOURCES INC. Glossary 11

Terrestrial Ecosystem

Mapping

Terrestrial Ecosystem Mapping is an approach to stratifying the landscape into map units according to ecological features using a combination of manual air photo interpretation and ground sampling (BC MOE n.d.).

Till (morainal material)

A heterogeneous and poorly sorted mixture of silt, sand, and rock deposited

by a glacier.

Topography

Surface configuration, including relief and position of natural and

man-made features.

Total Suspended Particulates (TSP)

A measure of the mass concentration of particulate matter in air.

Total Suspended Solids (TSS)

A measure of the dry weight of particulate material in a water sample.

Toxicity Reference Value (TRV)

The maximum acceptable dose or concentration of a chemical that can be received by a receptor without an appreciable risk of adverse health effects

during a human lifetime.

Tunnel An excavated horizontal, or near-horizontal, underground passage that is

open to the surface at both ends.

Valued Components (VCs)

Valued Components are environmental, social, economic, health, and heritage components that the public, scientists, government agencies, Aboriginal peoples, and stakeholders consider important. They are identified, in part, through consultation with the above and may be determined on the basis of values including First Nations' or Nisga'a interests, cultural value, scientific and/or regulatory concern, conservation

interests, cultural value, scientific and/or regulatory concern, conservation status, biodiversity, and sensitivity to proposed Project effects.

Ventilation The provision of a directed flow of fresh and return air along all

underground roadways, travelling roads, workings, and service parts.

Waste rock That rock that must be removed from a mine to safely and economically

extract the ore, but which has no value.

Wetlands Wetlands are lowland or depressional features where water saturation is the

dominant factor determining the nature of soil development and the

resulting vegetation communities.

Wildfire An unplanned or unwanted natural or anthropogenic fire.

Wilp The wilp is a basic matrilineal kinship unit among some First Nations in

northwestern British Columbia.

X-ray Fluorescence Spectrometry A non-destructive method used to determine the elemental composition of natural and man-made materials, such as obsidian, to aid in determining its

source.

Zooplankton Free-swimming aquatic organisms that feed on detritus, primary producers,

and other aquatic invertebrates. Zooplankton are important secondary producers in some lakes and are responsible for transferring energy to

higher levels in the aquatic foodweb.

REFERENCES

- 1992. Canadian Environmental Assessment Act, SC C. 37.
- 1996. Heritage Conservation Act, RSBC. C. 187.
- 2002a. Environmental Assessment Act, SBC C. 43.
- 2002b. Species at Risk Act, SC. C. 29.
- BC MOE. n.d. *Terrestrial Ecosystem Mapping*. http://www.env.gov.bc.ca/fia/terrecomap.htm (accessed February 2013).
- CEA Agency. 1999. Cumulative Effects Assessment Practitioners' Guide. Canadian Environmental Assessment Agency. http://www.ceaa.gc.ca/default.asp?lang=En&n=43952694-1&print fullpage=true#wsB0972650 (accessed January 2013).
- DFO. n.d. *Frequently Asked Questions*. Fisheries and Oceans Canada. http://www.dfo-mpo.gc.ca/Science/biotech/abgrds-srdbfa/faq-eng.htm (accessed January 2013).
- MBA Training Company. n.d. Mining Industry Glossary. Terrapin Group: n.p.
- Merriam-Webster. 2013a. *Mesotrophic*. http://www.merriam-webster.com/dictionary/mesotrophic (accessed June 2013).
- Merriam-Webster. 2013b. *Oligotrophic*. http://www.merriam-webster.com/dictionary/oligotrophic (accessed June 2013).
- Merriam-Webster. 2013c. *Phreatic*. http://www.merriam-webster.com/dictionary/phreatic (accessed June 2013).
- Price, W. A. and J. C. Errington. 1998. *Guidelines for Metal Leaching and Acid Rock Drainage at Minesites in British Columbia*. British Columbia Ministry of Energy and Mines. http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/ML-ARD/Pages/Guidelines.aspx (accessed January 2013).
- Rand, G. M., ed. 1995. Fundamentals of Aquatic Toxicology: Chapter 15, Transport and Transformation Processes. Washington, DC: CRC Press.
- US Geological Survey. n.d. Glossary. http://water.usgs.gov/nawqa/glos.html (accessed February 2013).
- Wetzel, R. G. 2001. Limnology. 3rd ed. San Diego: Academic Press.

PRETIUM RESOURCES INC. Glossary 13