## Acronyms and Abbreviations

Terminology used in this document is defined where it is first used. The following list will assist readers who may choose to review only portions of the document.

%	Percent
%HA	Percent highly annoyed
0	Degrees (gradient)
°C	Degrees Celsius
2-D	Two-dimensional
3-D	Three-dimensional
AAC	Annual allowable cut
AADT	Annual average daily trips
AANDC	Aboriginal Affairs and Northern Development Canada (formerly known as Indian and Northern Affairs Canada [INAC])
AAQO	Ambient air quality objective
ABA	Acid base accounting
ABCFP	Association of British Columbia Forest Professionals
ABR	Anaerobic biochemical reactor
ACRD	Asphalt core rock fill dam
ADFG	Alaska Department of Fish and Game
AEMP	Aquatic Effects Monitoring Plan
Ag	Silver
AGP	Acidgenerating potential
AIA	Archaeological Impact Assessment
AIR	Application Information Requirements
AK	Alaska
Alpine Solutions	Alpine Solutions Avalanche Services

AN Prill	Prilled ammonium nitrate
AK DNR	Alaska Department of Natural Resources
ANFO	Ammonium nitrate with fuel oil
ANSI	American National Standards Institute
	Avian Power Line Interaction Committee
APLIC	
Application/EIS	Application for an Environmental Assessment Certificate/ Environmental Impact Statement
Archaeology Branch	Archaeology Branch of the British Columbia Ministry of Forests, Lands and Natural Resource Operations
ARD	Acid rock drainage
As	Arsenic
ATSDR	Agency for Toxic Substances and Disease Registry
ATV	All-terrain vehicle
Au	Gold
AuEq	Gold equivalent grade
Avanti	Avanti Mining Ltd.
AVR	Acidification, volatilization, re-neutralization
BATNEEC	Best available technique not entailing excessive cost
BAFA	Boreal Altai Fescue Alpine
В	Billion
BA	Benefits Agreement
BC	British Columbia
BC AMTA	British Columbia Aboriginal Mine Training Association
BC CDC	British Columbia Conservation Data Centre
BC EAA	British Columbia Environmental Assessment Act (2002)
BC EAO	British Columbia Environmental Assessment Office
BC ILMB	British Columbia Integrated Land Management Bureau (currently British Columbia Ministry of Forests, Lands and Natural Resource Operations [BC MOFLNRO])

BC MARR	British Columbia Ministry of Aboriginal Relations and Reconciliation
BC MEM	British Columbia Ministry of Energy and Mines (currently British Columbia Ministry of Energy, Mines, and Natural Gas [BC MEMNG])
BC MEMNG	British Columbia Ministry of Energy, Mines and Natural Gas
BC MEMPR	British Columbia Ministry of Energy, Mines and Petroleum Resources (currently British Columbia Ministry of Energy, Mines and Natural Gas)
BC MFLNRO	British Columbia Ministry of Forests, Lands and Natural Resources Operations
BC MMRP	British Columbia Métis Mapping Research Project
BC MOE	British Columbia Ministry of Environment
BC MOF	British Columbia Ministry of Forests (currently British Columbia Ministry of Forests, Lands and Natural Resource Operations [BC MOFLNRO])
BC MOFR	British Columbia Ministry of Forests and Range (currently British Columbia Ministry of Forests, Lands and Natural Resource Operations [BC MOFLNRO])
BC MOT	British Columbia Ministry of Transportation (currently British Columbia Ministry of Transportation and Infrastructure [BC MOTI])
BC MOTI	British Columbia Ministry of Transportation and Infrastructure
BC MSRM	British Columbia Ministry of Sustainable Resource Management
BC MWLAP	British Columbia Ministry of Water, Land and Air Protection (currently British Columbia Ministry of Environment [BC MOE])
BEC	Biogeoclimactic Ecosystem Classification
BGC	BGC Engineering Inc.
BMP	Best management practice
BP	Before present (AD 1950)
BSA	Baseline study area
Bt	Billion tonnes
BTF	Biotransfer factor

BWBody weightCACaliforniaCACCriteria air contaminant
CAC Criteria air contaminant
Ca CaNP Calcium calculated neutralization potential
CaHCO <sub>3</sub> Calcium bicarbonate
California Environmental Protection Agency
Camp 1 Camp 1: Granduc Staging Camp
Camp 2 Camp 2: Ted Morris Camp
Camp 3 Camp 3: Eskay Staging Camp
Camp 4 Camp 4: Mitchell North Camp
Camp 5 Camp 5: Treaty Plant Camp
Camp 6 Camp 6: Treaty Saddle Camp
Camp 7Camp 7: Unuk North Camp
Camp 8 Camp 8: Unuk South Camp
Camp 9 Camp 9: Mitchell Initial Camp
Camp 10Camp 10: Mitchell Secondary Camp
Camp 11Camp 11: Treaty Creek Marshalling Camp
Camp 12 Camp 12: Highway 37 Construction Camp
CaO Calcium oxide (or slaked lime)
CAPEX Capital expenditures
CAPMoN Canadian Air and Precipitation Monitoring Network
CARA Clean Air Regulatory Agenda
CARB California Air Resources Board
CaSO <sub>4</sub> Anhydrite
CaSO <sub>4</sub> H <sub>2</sub> 0 Gypsum
CCAC Coulter Creek Access Corridor

CCAR	Coulter Creek access road
CCCSN	Canadian Climate Change Scenarios Network
CCME	Canadian Council of Ministers of the Environment
CDA	Canadian Dam Association
CEA	Cumulative Effects Assessment
CEAA	Canadian Environmental Assessment Act
CEA Agency	Canadian Environmental Assessment Agency
CEIDARS	California Emission Inventory and Report System
CEO	Chief Executive Officer
СЕРА	Canadian Environmental Protection Act (1999)
CFNR	Canada's First Nation's Radio
CF SLRA	Country foods screening level risk assessment
CIL	Carbon-in-leach
CIS	Cassiar Iskut-Stikine
CH <sub>4</sub>	Methane
cm	Centimetre(s)
СМА	Coastal Mountain-heather Alpine
СМТ	Culturally modified tree
CN	Cyanide
CN Rail	Canadian National Railway
СО	Carbon monoxide
CO <sub>2</sub>	Carbon dioxide
CO <sub>2</sub> e	Carbon dioxide equivalent
COD	Chemical oxygen demand
СОРС	Contaminants/chemicals of potential concern
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
CRA	Cumulative risk assessment

CPUE	Catch per unit effort
CSR	Contaminated Sites Regulation (BC Reg. 375/96)
Cu	Copper
Cu <sub>3</sub> AsS <sub>4</sub>	Enargite
$Cu_{12}As_4S_{13}$	Tennantite
Cu <sub>2</sub> S	Chalcocite
CuFeS <sub>2</sub>	Chalcopyrite
Cu <sub>4</sub> FeS <sub>4</sub>	Bornite
CWB	Community well-being
СWH	Coastal Western Hemlock (ecological zone)
CWS	Canadian Wildlife Service
d	Day
dB	Decibel(s)
dBA	Decibels (A-weighted)
DBS	Depth below surface
DC	District of Columbia
DEM	Digital elevation model
DFO	Fisheries and Oceans Canada
dm	Decimetre
DNA	Deoxyribonucleic acid
DO	Dissolved oxygen
dw	Dry weight
DWT	Dead weight tonnes
EA	Environmental assessment
EA Cooperation Agreement	Canada-British Columbia Agreement on Environmental Assessment Cooperation (2004)
EC	Environment Canada

EC <sub>10</sub>	Effect concentration affecting 10%
ECMT	European Conference of Ministers of Transport
EDF	Environmental discharge flood
EDI	Estimated daily intake
EEM	Environmental Effects Monitoring
EF	Emission factor
EI	Employment Insurance
EIS	Environmental Impact Statement
EMA	Environmental Management Act (2003)
EMP	Environmental Management Plan
EMS	Environmental Management System
ENSO	El Niño Southern Oscillation
EPCM	Engineering, Procurement, and Construction Management
ePIC	Electronic Project Information Centre
EPP	Environmental Protection Plan
ЕРТ	Ephemeroptera, Plecoptera, and Trichoptera
ER	Exposure ratio
ESCIA	Economic, Social, Cultural Impact Assessment
ESSF	Engelmann Spruce – Subalpine Fir (ecological zone)
FAL	Freshwater aquatic life
FBR	Fluidized bed reactor
FDIS	Field Data Inventory System
FeS <sub>2</sub>	Pyrite
FISS	Fisheries Information Summary System
FMEA	Failure Modes and Effects Analysis
FOS	Factor of safety
FRPA	Forest and Range Practices Act (2002)

FTPFile transfer portalgGram(s)	
<b>G</b> ram(s)	
g Gram(s)	
<i>g</i> Unit of measure for ground acceleration	
GCFSS Gitxsan Child and Family Services Society	
GCM Global climate model	
GCO Gitxsan Chiefs' Office	
GDP Gross domestic product	
GHCO Gitanyow Hereditary Chiefs' Office	
GHG Greenhouse gas	
GHS Gitanyow Human Services	
GIF Ground Inspection Forms	
GIS Geographic Information System	
GMD General Management Direction	
Golder Golder Associates Ltd.	
GPS Global Positioning System	
Granduc Granduc Mines Ltd.	
GST Goods and Services Tax	
GVW Gross vehicle weight	
GWP Global warming potential	
<b>GWA</b> Gitksan Watershed Authorities	
<b>GWES</b> Gitksan Wet'suwet'en Education Society	
GWh Gigawatt-hour	
h Hour(s)	
ha Hectare(s)	
HADDHarmful alteration, disruption, or destruction (of fish habitat)	)
HBC Hudson's Bay Company	

НСА	Heritage Conservation Act (1996)
HDPE	High-density polyethylene
HDS	High-density sludge
HEP	Hydro-electric power
HHRA	Human health risk assessment
HIS	Habitat Suitability Index
HP	Horse power
HPGR	High pressure grinding rolls
HQ	Hazard quotient
HSC	Habitat Suitability Criteria
HSI	Habitat Suitability Incides
HRSDC	Human Resources and Skills Development Canada
HSR	Habitat Suitability Rating
HU	Habitat unit
Hwy	Highway
IARC	International Agency for Research on Cancer
ICABC	Institute of Chartered Accountants of British Columbia
ICMI	International Cyanide Management Institute
ICP-MS	Inductively coupled plasma mass spectrometry
IDF	Inflow design flood
IEA	International Energy Agency
IEC	International Electrotechnical Commission
ILRR	Integrated Land Resource Registry
INAC	Indian and Northern Affairs Canada (currently known as Aboriginal Affairs and Northern Development Canada [AANDC])
Inorg NP	Inorganic neutralization potential
IPCC	Intergovernmental Panel on Climate Change

IDD	
IPP	Independent Power Producer
IR	Indian reserve
IRIS	Integrated Risk Information System
ISF	Inhalation slope factor
ILCR	incremental lifetime cancer risk
IR	Indian reserve
ISO	International Organization for Standardization
ISQ	Interim sediment quality
ISSN	International Standard Serial Number
JEFCA	Joint FAO/WHO Expert Committee on Food Additives
JOC	Journal of Commerce
JSA	Job Safety Analysis
КСВ	Klohn Crippen Berger Ltd.
KGL	Knipple Glacier Lake (sampling site)
km	Kilometre(s)
kPa	Kilopascal
kph	Kilometres per hour
kt	Kilotonne(s)
kV	Kilovolt(s)
kW	Kilowatt(s)
kWh	Kilowatt hour
L	Litre(s)
L/d	Litres per day
L/s	Litres per second
L <sub>AE</sub>	A-weighted sound exposure level
L <sub>AFmax</sub>	Maximum A-weighted, fast tiem constant sound level
LAL	West Teigen Lake sampling site

lb	Pound(s)
LD	Lethal dose
L <sub>d</sub>	Daytime sound level
LDS	Low-density sludge
LEL	Lowest effect level
L <sub>eq</sub>	Equivalent continuous noise level
L <sub>dn</sub>	Day-nighttime sound level
L <sub>n</sub>	Nighttime sound level
LG	Lerchs-Grossman
LHA	Local Health Area
LHD	Load haul dump
LiDAR	Light Detection and Ranging
LLDPE	Low-density polyethylene
$\mathbf{L}_{\mathbf{LF}}$	Sum of sound levels in the 16-, 31.5- and 63-Hz octave bands
LOAEL	Lowest observable adverse effect level
LOM	Life of mine
LP	Lower panel
L <sub>peak</sub>	Peak sound level
LRMP	Land and Resource Management Plan
LSA	Local study area
LULUCF	Land use, land use change, and forestry
LWD	large woody debris
m	Metre(s)
m <sup>3</sup>	Cubic metre(s)
m <sup>3</sup> /d	Cubic metres per day
m <sup>3</sup> /s	Cubic metres per second
Μ	Million

MAA	Multiple accounts analysis
MABC	Mining Association of British Columbia
MAD	Mean annual discharge
MAP	Mean annual precipitation
masl	Metres above sea level
MCE	Maximum credible earthquake
MDDEFP	Ministère du Développement durable, de l'Environnement, de la Faune et des Parcs
MDT	Mitchell Diversion Tunnels
МеНg	Methyl mercury
MEND	Mine Environment Neutral Drainage (program)
mg	Milligram(s)
МН	Mountain Hemlock (ecological zone)
MineSight	MineSight® Strategic Planner
MIBC	Methyl isobutyl carbinol
μg	Microgram(s)
μm	Micrometre(s)
μS	Microsecond
ML	Metal leaching
mm	Millimetre(s)
mm/a	Millimetres per annum
Mm <sup>3</sup>	Million cubic metres
MMER	Metal Mining Effluent Regulations (SOR/2002-222)
Мо	Molybdenum
MoS <sub>2</sub>	Molybdenite
MOVES	Motor Vehicle Emission Simulator
MPa	Megapascal

МРМО	Major Project Management Office	
MTDT	McTagg Twinned Diversion Tunnels	
Mt	Million tonnes	
Mtpa	Million tonnes per annum	
MTF	Mitchell Thrust Fault	
MTT	Mitchell-Treaty Twinned Tunnels	
MVA	Megavolt-ampere	
MVC	Moose/vehicle collision	
MW	Megawatts	
MWh	Megawatt hour	
MWR	Municipal Wastewater Regulation (BC Reg. 87/2012)	
MWWO	Minor Works and Waters Order	
NAAQO	National Ambient Air Quality Objectives	
NAG	Non acid-generating	
NaHCO3	Sodium bicarbonate	
NCDR	North Coast Development Region	
NCFS	Nisga'a Child and Family Services	
NCG	Nisga'a Commercial Group of Companies	
NDIT	Northern Development Initiative Trust	
NDT	Natural disturbance type	
Newhawk	Newhawk Gold	
Newmont	Newmont Mining Corp.	
NFA	Nisga'a Final Agreement	
NG	No guideline	
NGO	Non-governmental organization	
NIHL	Noise induced hearing loss	
Ni	Nickel	

NIR	National Inventory Report	
Nisga'a villages	Gitlaxt'aamiks, Gitwinksihlkw, Laxgalts'ap, and Gingolx	
NLC	Northern Lights College	
NLG	Nisga'a Lisims Government	
N <sub>2</sub> O	Nitrous oxide	
NO <sub>2</sub>	Nitrogen dioxide	
NO <sub>x</sub>	Nitrogen oxides	
NOAA	National Oceanic and Atmospheric Administration	
NOAEL	No observed adverse effect level	
Noranda	Noranda Inc.	
NP	Neutralization potential	
NPA	Navigation Protection Act (2012)	
NPAG	Not potentially acid generating	
NPR	Net Potential Ratio	
NPV	Net present value	
NRCan	Natural Resources Canada	
NSP	Net Smelter Price	
NSR	Net Smelter Return	
NTFP	Non-timber forest product	
NTL	Northwest Transmission Line	
NTS	National Topographic System	
NTU	Nephelometric Turbidity Unit	
NVHA	Nisga'a Vally Health Authority	
NWA	Nass Wildlife Area	
NWCC	Northwest Community College	
NWCG	National Wildfire Coordinating Group	
NWIPC	Northwest Invasive Plant Council	

NWPA	Navigable Waters Protection Act (1985)	
OAC	Overall allowable catch	
ОСР	Official Community Plan	
OCS	Ore control system	
OGMA	Old Growth Management Area	
OH&S	Occupational health and safety	
ON	Ontario	
OPC	Ore Preparation Complex	
OPEX	Operation expenditures	
OZ	Ounce(s)	
PA	Pennsylvania	
PAG	Potentially acid generating	
РАН	Polycyclic aromatic hydrocarbon	
PAX	Potassium amyl xanthate	
Pb	Lead	
PbS	Galena	
PEA	Preliminary Economic Assessment	
PEL	Probable effect level	
PEM	Predictive Ecosystem Mapping	
PFS	Prefeasibility study	
Pretivm	Pretium Resources Inc.	
PGA	Peak ground acceleration	
рН	Measure of acidity or alkalinity	
Placer	Placer Dome Inc.	
PM	Particulate matter	
PM <sub>10</sub>	Particulate matter less than 10 microns in diameter	
PM <sub>2.5</sub>	Particulate matter less than 2.5 microns in diameter	

PMF	Probable maximum flood	
PMP	Probable maximum precipitation	
ppb	Parts per billion	
ppm	Parts per million	
ppmv	Parts per million by volume	
Project	KSM Project	
Proponent	Seabridge Gold Inc.	
psi	Pounds per square inch	
PST	Provincial sales tax	
PTDI	Provisional tolerable daily intake	
PTMA	Processing and Tailing Management Area	
PTWI	Provisional tolerable weekly intake	
PVA	Population Viability Analysis	
PVC	Polyvinyl chloride	
РҮ	Person year	
PYLL	Potential years of life lost	
Q100	100-year flood	
QC	Quebec	
QA/QC	Quality assurance and quality control	
RA	Responsible Authority	
RAAD	Remote Access to Archaeological Data online application	
RCC	Roller compacted concrete	
RCDC	Red Chris Development Company Ltd.	
RCMP	Royal Canadian Mounted Police	
RDBN	Regional District of Bulkley-Nechako	
RDKS	Regional District of Kitimat-Stikine	
Re	Rhenium	

Rescan	Rescan Environmental Services Ltd.	
RfD	Reference dose	
RFI	Recreational Features Inventory	
RFP	Recreational Feature Polygons	
RIC	Resources Inventory Committee (currently Resources Information Standards Committee)	
RISC	Resources Information Standards Committee	
RM	Rural Municipality	
RMI	Resource Modeling Inc.	
RMWI	Recommended maximum weekly intake	
RMZ	resource management zone	
ROW	Right-of-way	
RPD	Relative percent differences	
RQD	Rock quality designation	
RSA	Regional study area	
RSD	Relative standard deviation	
RSF	Rock Storage Facility	
8	Second(s)	
SABC	Mill-ball mill-pebble crushing	
Saddle Area	Mitchell-Treaty Saddle Area	
SAC(s)	Subaqueous column(s)	
SAG	Semi-autogenous grinding	
SARA	Species at Risk Act (2002)	
SART	Sulfidization, acificiation, recycling, thickening	
SD	School district	
SDS	Safety data sheet	
Se	Selenium	

Seabridge	Seabridge Gold Inc.	
SEL	Severe effect level	
SERC	Social, Economic, Resource Use, and Cultural	
SF <sub>6</sub>	Sulphur hexafluoride	
SFU	Simon Fraser University	
SHIM	Sensitive Habitat Inventory Mapping	
SLRA	Screening level risk assessment	
SMCT	Sulphurets-Mitchell Conveyor Tunnel	
SMU	Soil mapping unit	
SNDS	Skeena Native Development Society	
SNPR	Sulphide net potential ratio	
SO <sub>2</sub>	Sulphur dioxide	
SO <sub>x</sub>	Sulphur oxides	
SOP	Standard operating procedure	
SRMP	Sustainable Resource Management Plan	
STF	Sulphurets Thrust Fault	
STP	Sewage treatment plant	
SU	Survey unit	
SUL	Sulphurets Lake sampling site	
t	Tonne(s)	
ТС	Transport Canada	
TCAC	Treaty Creek Access Corridor	
TCAR	Treaty Creek access road	
ТСС	Tahltan Central Council	
<b>TD</b> <sub>05</sub>	Tumorigenic dose at which the incidence of tumours (or death from tumours) is increased by $5\%$	
TDG	Transport of dangerous goods	

TDI	Tolerable daily intake	
TDL	Todedada Lake (sampling site)	
TDS	Total dissolved solids	
TEDA	Terrace Economic Development Association	
TEM	Terrestrial Ecosystem Mapping	
THREAT	Tahltan Heritage Resources Environmental Assessment Team	
TGAR	Temporary Frank Mackie Glacier access route	
ТК	Traditional knowledge	
TL	Transmission line	
TLC	Transmission Line Connector (the portion of the TL that is on the east side of Highway 37)	
TMF	Tailing Management Facility	
TNDC	Tahltan Nation Development Corporation	
ТОС	Total organic concentration	
tpa	Tonnes per annum	
tpd	Tonnes per day	
TPM	Total particulate matter	
TRIM	Terrain Resource Information Management	
TRV	Toxicity reference value	
TSA	Timber Supply Area	
TSC	Terrain Stability Class	
TSP	Total suspended particulate	
TSS	Total suspended solids	
TU	Traditional use	
ТWТ	Temporary Water Treatment (facility)	
UBC	University of British Columbia	
UCLM	Upper confidence limit of the mean	

UK	United Kingdom	
UNBC	University of Northern British Columbia	
UNFCCC	United Nations Framework Convention on Climate Change	
UP	Upper panel	
US	United States	
US EPA	United States Environmental Protection Agency	
USFS	United States Forest Service	
USFWS	United States Fish and Wildlife Service	
UTM	Universal Transverse Mercator	
UWR	Ungulate Winter Range	
VC	Valued component	
VPH	Vehicles per hour	
VolP	Voice over Internet Protocol	
VQSA	Visual quality study area	
VRI	Vegetation Resource Information	
W	Tungsten	
WA	Washington	
WAD	Weak acid dissociable	
WARS	Wildlife Accident Reporting System	
WBCSD	World Business Council for Sustainable Development	
WCI	Western Climate Initiative	
WDR	Waste Disharge Regulation (BC Reg. 320/2004)	
WEMP	Wildlife Effects Monitoring Program	
WHA	Wildlife Habitat Area	
WHMIS	Workplace Hazardous Materials Information System	
WHO	World Health Organization	
WMU	Wildlife Management Unit	

WRI	World Resources Institute
WRMF	Waste Rock Management Facility
WSC	Water Survey of Canada
WSD	Water Storage dam
WSF	Water Storage Facility
WTP	Water Treatment Plant
WUA	Weighted usable area
WUW	Weighted usable width
Ww	Wet weight
WWNI	Wilp Wilxo'oskwhl Nisga'a Institute
XRD	X-ray diffraction
XRF	X-ray fluorescence
Zn	Zinc
ZND	Zero net deforestation
(Zn,Fe)S	Sphalerite