

QUARTZ MINING LICENSE QML- 0001

This License is issued pursuant to section 135(2) of the Quartz Mining Act, S.Y. 2003, c.14. Previous versions of this License are hereby withdrawn and replaced.

License No: QML-0001

Issued to: Minto Metals Corp.
61 Wasson Place
Whitehorse, Yukon
Y1A 0H7

Project Name: Minto Mine Project

Location: NTS 115I11; Latitude: 62° 37 'N, Longitude: 137° 15' W
Whitehorse Mining District

License Effective Date: May 19, 2011

Amendment Effective Date: The date upon which the signature of the Director is affixed

Expiry Date: December 31st, 2030

Scope of Authorization: Development, production, reclamation and closure associated with underground and open pit mining and milling at the Minto Mine as set out in this License.

Dated this 1 day of April, 2022.



Director, Mineral Resources
Energy, Mines and Resources

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PART I - GENERAL PROVISIONS

1.0 Definitions

1.1 In this License

"Act" means the *Quartz Mining Act*, S.Y. 2003, c.14;

"approved closure plan" means the *Minto Mine Phase V/VI Reclamation and Closure Plan-Revision 5.1*, dated August, 2014, and the *Reclamation and Closure Plan for Minto North Stripping Activities*, dated August 20, 2014, or a revision or consolidation of these plans, revised as described in section 7 of this Licence and approved in accordance with section 6 of this Licence;

"approved plan" means a plan listed in Schedule C and for greater certainty includes any terms and conditions specified by the Director as set out in the Schedule;

"day" means a calendar day;

"Director" means the Director of the Mineral Resources Branch;

"dry stack tailings facility" means the dry stack tailings facility described in the *Minto Mine Tailings Management Plan* (June, 2014) listed in Schedule C;

"engineer" means a professional engineer as defined in, and licensed under, the *Engineering Profession Act*, R.S.Y. 2002, c.75;

"environmental management system" means the processes and procedures developed by the licensee to manage environmental emergencies that may occur at the site as described in approved plans addressing hazardous materials management, spill contingency planning, explosives management and emergency response planning;

"environmental protection plans" means the plans prepared by the Licensee to manage the environmental effects of the Undertaking as described in approved plans addressing waste management, environmental monitoring, wildlife protection, sediment and erosion control, heritage resource protection, spill contingency planning, hazardous materials management, explosives management, emergency response planning and adaptive management to respond to unexpected or unacceptable impacts to the environment;

"Inspector" means an Inspector designated pursuant to the Act;

"License" means the Quartz Mining License QML-0001;

"Licensee" means the person to whom this License is issued;

"mill" means the building fitted with machinery for processing ore, including a crusher, mill ore stockpiles, concentrate load-out, tailings filter presses and load-out, and support infrastructure, as described in an approved plan listed in Schedule C related to Mill operations;

"mine" includes

- (a) the Main Pit, Area 2 Stage 1,2 and 3, Area 118, Minto North, Ridgetop North and South open pits and related infrastructure, as described in an approved plan listed in Schedule C related to mine development and operations;
- (b) the Area 2, Area 118, Minto East, Copper Keel and Wildfire underground workings accessed by the Minto South Portal and Wildfire Portal and related infrastructure, as each is described in an approved plan listed in schedule C related to mine development and operational plan;
- (c) the Main Waste Dump, Main Waste Dump Expansion, Southwest Dump, Ice Rich Overburden Dump, Reclamation Overburden Dump, Main Pit Dump, Area 118 Backfill Dump, Ridgetop Waste Dump, Ridgetop South Backfill Dump, South Wall Buttress and the Mill Valley Fill, as each is described in an approved plan listed in Schedule C related to waste rock and overburden management;
- (d) any roads constructed at the site by the Licensee; and
- (e) all supporting infrastructure at the site including fuel tanks, repair and maintenance shops, explosive storage buildings, backfill and ventilation facilities, water storage ponds and associated dams, as each is described in an approved plan listed in Schedule C related to environmental protection or mine and mill operations.

"Minister" means the Minister of Energy, Mines and Resources;

"open pit" means the surface workings open to daylight that will be excavated to extract waste rock and ore, as each is described in an approved plan listed in Schedule C related to mine development and operations;

"operations plans" means the plans prepared by the Licensee to manage and direct development and production of the Undertaking as described in approved plans addressing mine development and operations, mill operations, waste rock and overburden management and tailings management;

"ore" means rock containing minerals that will be extracted in the mill;

"overburden" means soil or other unconsolidated material that lies above the rock surface;

"permanent closure" means the closure of the Undertaking as evidenced by the cessation of development and production as authorized by this License for any period of time that is not a temporary closure;

"plan" means any of the plans listed in Schedule B;

"Regulation" means the *Quartz Mining Land Use Regulation*, O.I.C. 2003/64;

"site" means the area where the Undertaking is taking place;

"site characterization" means a summary of the environmental conditions found at the site for areas that are, or may be, affected by the Undertaking;

"tailings facility" means the areas and related infrastructure that are to be used for storing materials that are produced as a result of milling ore, including ground rock, unrecoverable ore and water and chemicals used to assist in milling ore, as each is described in an approved plan listed in Schedule C related to tailings management;

"temporary closure" means the closure of the Undertaking as evidenced by the cessation of development and production authorized by this License for a period longer than two (2) consecutive months;

"underground workings" means the workings located below the surface that will be excavated to extract waste rock and ore including all stopes, declines, adits, shafts, vents and related supports and infrastructure, as each is described in an approved plan listed in Schedule c related to mine development and operations;

"Undertaking" means all development, production, reclamation and closure activities authorized by this License related to the extraction of mineral resources from the mineral claims and leases identified in Schedule A;

"waste rock" means rock excavated from the open pits or underground workings that will not be processed in the mill;

"waste rock storage facility" means an area where waste rock is placed, either temporarily or permanently, as each is described in an approved plan listed in Schedule C related to waste rock and overburden management.

1.2 Any term not defined in this License that is defined in the Act has the same meaning as in the Act.

1.3 The following schedules form part of this License

- (a) Schedule A - Listed Mineral Claims and Leases
- (b) Schedule B - Plans to be Submitted for Review and Approval as Approved Plans
- (c) Schedule C - Approved Plans and Authorized Activities
- (d) Schedule D - Annual Reporting Requirements

2.0 **Coming into Effect**

2.1 The authorizations, obligations, and requirements set out in this License come into effect on the effective date.

3.0 **Authorized Activities**

3.1 The Licensee is authorized to carry out activities set out in Part 1 of Schedule C

- (a) on the mineral claims listed in Schedule A; and
- (b) in accordance with the terms and conditions set out in this License.

4.0 **Extensions of Time Limits**

4.1 If the Licensee submits a written request to extend a time limit imposed by this License no less than five days before the expiry of the time limit in question, the Director may extend the time limit. The new time limit will replace the time limit imposed in this Licence solely with respect to the written request.

5.0 **Correspondence**

5.1 Any written communication, notice or report required to be given by the Licensee pursuant to this License may be provided by personal delivery to the persons identified below, electronic mail or by registered mail to the addresses set out below.

To the Licensee: President, Minto Metals Corp.
61 Wasson Place
Whitehorse, Yukon Y1A0H7
cstewart@mintomine.com

To the Director: Director, Mineral Resources
Department of Energy, Mines and Resources
P.O. Box 2703 K-9
Whitehorse, Yukon Y1A 2C6
Todd.Powell@yukon.ca

5.2 Either the Licensee or the Director may change its address for service while this License is in effect by notifying the other in writing. All written communications, notices or

reports will be considered to have been received by the Licensee or the Director, as the case may be, 10 days after the mailing thereof, or if personally delivered or sent by facsimile or by electronic mail, on the day of delivery.

PART II - DEVELOPMENT AND IMPLEMENTATION OF PLANS

6.0 **Approval and Amendment of Plans**

- 6.1 When the Licensee is required to submit a plan under this License, the Licensee must
- (a) submit the plan or proposed amendment in writing to the Director;
 - (b) ensure that the plan or proposed amendment meets the requirements for that type of plan as directed by the Director in writing; and
 - (c) not undertake any of the activities described in the plan or the proposed amendment until the plan becomes an approved plan, as evidenced by its listing in Schedule C.
- 6.2 If the Licensee wants to amend an approved plan, it must submit the proposed amendment to the Director no less than ninety (90) days prior the date the licensee wishes to carry out any of the activities set out in the proposed amendment.
- 6.3 If the Director approves an amendment to an approved plan, as evidenced by its listing in Schedule C, the amendment will be considered to be an approved plan or a part of an approved plan, whichever is appropriate in the circumstance, and replaces any prior approved plan or part thereof.
- 6.4 If the Director directs in writing and with reasons that an approved plan be amended, the licensee must prepare the required amendment and submit it to the Director as if it was a plan referred to in paragraph 6.1 of this license.
- 6.5 All plans and reports submitted by the Licensee with respect to the design or construction of any engineered structures, works or installations related to the Undertaking must be under the stamp or seal of an engineer.

7.0 **Required Plans**

- 7.1 The Licensee must submit to the Director the plans listed in Schedule B.
- 7.2 The Licensee must
- (a) submit to the Director an updated reclamation and closure plan no later than August 5, 2016 and every two years thereafter, until the expiry date of the License.

8.0 Implementation of Plans

- 8.1 Unless otherwise indicated in writing by the Director, the Licensee must implement each approved plan as of the date each plan becomes an approved plan.
- 8.2 The Licensee must undertake reclamation at the site in accordance with the approved closure plan.

PART III - DEVELOPMENT AND MINE OPERATIONS

9.0 Development and Mine Operations

- 9.1 The Licensee must immediately implement the relevant component of the environmental management system if a spill or release of dangerous or hazardous substances or materials occurs at site.
- 9.2 At least sixty (60) days prior to commencing any construction of an engineered structure, the Licensee must submit to the Director detailed designs of the structure.
- 9.3 The Licensee must follow the procedures for determining the acid rock drainage or metal leaching potential of all material that may be used for construction as set out in the approved plan listed in Schedule C titled *Minto Mine Phase V/VI Expansion - Waste Rock and Overburden Management Plan* (June, 2014) or any amendment to this plan once the amendment becomes an approved plan.
- 9.4 Waste rock used for construction purposes must have a copper content no greater than 0.10 percent, a NP:AP ratio of at least 3:1 and a total sulphur content of no greater than 0.3%.
- 9.5 All waste rock and overburden storage facilities, and ore stockpiles must be built on stable foundations having no less than 1.7 metric tonnes per cubic meter frozen bulk density.
- 9.6 The Licensee must not remove more than 42.14 million cubic meters of waste rock from the open pits and underground workings, in total, during the term of this License.
- 9.7 The Licensee must not process ore at a rate exceeding 4,200 tonnes per day, based upon a 12 month average, during the term of this License.
- 9.8 The mining rate must not exceed 2.5 million tonnes of material for processing through the

mill per year.

- 9.9 The Licensee must not extract more than 26.576 million tonnes of ore from the mine over the term of this License.
- 9.10 The Licensee must not place more than 4.7 million cubic meters of tailings in the Main Pit during the term of this License.
- 9.11 The Licensee must not place more than 7.7 million cubic meters of tailings in the Area 2 Pit during the term of this License.
- 9.12 The Licensee must not place more than 1.9 million cubic meters of tailings in the Ridgetop North Pit during the term of this License.
- 9.13 The Licensee is not authorized to place tailings in the dry stack tailings facility, other than those tailings already located in the dry stack tailings facility as of the effective date, during the term of this License.

PART IV - PERMANENT AND TEMPORARY CLOSURE

10.0 Permanent Closure and Temporary Closure

- 10.1 The Licensee must provide written notice to the Director of its intention to permanently close the Undertaking at least sixty (60) days prior to the Licensee bringing about permanent closure and specify the intended date for permanent closure.
- 10.2 Immediately upon permanent closure, the Licensee must implement the approved closure plan as it relates to permanent closure.
- 10.3 The Licensee must provide written notice to the Director of its intention to temporarily close the Undertaking at least seven (7) days prior to the Licensee bringing about temporary closure.
- 10.4 Immediately upon temporary closure, the Licensee must implement the approved closure plan as it relates to temporary closure.
- 10.5 The Licensee acknowledges that the Director may, after giving the Licensee a reasonable opportunity to be heard on the matter, declare the Undertaking to be in temporary closure. Immediately upon receiving notice of the Director's declaration the Licensee must implement the approved closure plan as it relates to temporary closure.
- 10.6 No production or development activities may be undertaken during temporary closures or

permanent closure unless otherwise authorized in writing by the Director.

- 10.7 Within thirty (30) days of entering into temporary closure, whether determined by notice under paragraph 10.3 or declaration under 10.5, the Licensee must provide to the Director:
- (a) written notice indicating for which engineered structures, works or installations at the site it has already provided as-built drawings to the Director; and
 - (b) copies of as-built drawings for those engineered structures, works or installations for which no such drawings have been previously provided to the Director.
- 10.8 The Licensee must notify the Director in writing at least thirty (30) days in advance of its intention to end temporary closure and resume development and production.
- 10.9 Unless otherwise authorized in writing by the Director, if temporary closure lasts longer than five continuous years from the date notice is given under paragraph 10.3 or a declaration made under paragraph 10.5, permanent closure will automatically be determined to have occurred as of that date and the Licensee must immediately implement the approved closure plan as it relates to permanent closure.

PART V - FINANCIAL SECURITY

11.0 **Financial Security**

- 11.1 The Licensee must furnish and maintain security with the Minister in the amount of \$104,274,643 (CDN) as outlined in the following schedule:
- (a) \$99,285,831 no later than April 5, 2022;
 - (b) \$4,359,972 thirty (30) days prior to commencement of activities in support of the Ridgetop mining area; and
 - (c) \$628,840 thirty (30) days prior to commencement of activities in support of the Minto North underground operations.
- 11.2 The Licensee acknowledges that the amount of security to be furnished and maintained will be reviewed and adjusted by the Minister no less than once every two years in accordance with the *Security Regulation*, OIC 2007/77.
- 11.3 If the Minister determines that additional security must be provided during the term of this License, the Licensee must furnish and maintain the additional amount of security.
- 11.4 The Licensee acknowledges that the written notice of the Minister referred to in paragraph 11.3 of this License will, upon issuance, amend paragraph 11.1 of this License with respect to the amount of security required to be furnished and maintained. The

notice will be considered a requirement of this License as of the date of the notice.

- 11.5 Unless otherwise determined in writing by the Director, if the Licensee fails to furnish and maintain the security referred to in paragraph 11.1 or 11.3 of this License, the authorization provided in paragraph 3.1 if this License is suspended for all authorized activities that are not directly related to temporary closure or permanent closure, as the case may be, until security is furnished as required.
- 11.6 If security is furnished in the form of a surety bond or irrevocable letter of credit, and the surety or institution issuing the bond or letter of credit provides notice to the Minister of its intention to terminate its obligation, the Licensee must furnish another form of security acceptable to the Minister in the full amount required by this License thirty (30) days before the date of termination or within ninety (90) days after the date of the notice, whichever is shorter, or the Licensee will be in default of the requirement to furnish and maintain security as required by this License and Yukon government may immediately demand payment from the surety or institution.

PART VI - AUDITS AND REPORTING

12.0 Environmental Audit

- 12.1 The Licensee must carry out an environmental audit, to be undertaken by an independent contractor acceptable to the Director, no later than September 1st in every second (2nd) year from the effective date, to determine if the environmental protection plans and regulatory controls set out in this License are sufficient to ensure that the environmental quality at, in and around the mine is being protected and that the environmental management systems and controls are functioning as intended.
- 12.2 The audit must review the management, operations and practices of the Licensee that are intended to ensure environmental protection during production and development. The audit must evaluate:
- (a) compliance with the approved plans;
 - (b) the adequacy of the environmental protection plans to meet the objectives and intent of each plan;
 - (c) compliance with the internal environmental policies and procedures of the Licensee;
 - (d) the progress and success of reclamation and closure efforts completed to date;
 - (e) the reliability and integrity of information relating to environmental reporting and compliance; and
 - (f) any other requirements, including the scope and focus of the audit, as directed by the Director in writing.

12.3 Within sixty (60) days of an environmental audit being completed, the Licensee must provide the Director with a copy of the audit and a report detailing any remedial action to be undertaken by the Licensee in response to the audit.

13.0 Reporting and Inspections

13.1 The site characterization report dated May, 2014 and submitted by the Licensee with its application for this License, must be updated every three (3) years from the effective date of this license, unless the Director directs, in writing, that the report must be updated on a more frequent basis. Descriptions of the environmental conditions at the site must be accompanied by supporting data and analysis demonstrating a suitable understanding of site-specific environmental conditions.

13.2 The Licensee must ensure that an inspection of the physical stability of all engineered structures, works and installations located at the site is conducted by an independent engineer by June 30 of each year of the term of this License, including the tailings facilities and related impoundment structures, the waste rock and overburden storage facilities, the open pits, the underground workings, ore stockpiles, mill site, camp sites, any diversion structures or dams and any other engineered facilities or works associated with the Undertaking.

13.3 Within sixty (60) days of the inspection referred to in paragraph 13.2, the Licensee must submit to the Director and the Inspector a written report prepared by the engineer that conducted the annual inspection documenting the results of the inspection, including a:

- (a) summary of the stability, integrity and status of all of the inspected structures, works, and installations; and
- (b) any recommendations for remedial actions made as a result of these investigations and evaluations.

13.4 The Licensee must take immediate steps to implement any of the recommendations for remedial action made as a result of the inspection referred to in paragraph 13.2 of this License and provide to the Director and the Inspector with a written statement detailing how and when each of the recommendations for remedial action was addressed.

13.5 On or before March 31st of each year of the term of this License, the Licensee must submit an annual report, in writing, containing the information set out in Schedule D, covering the period of January 1 to December 31 of the prior year.

Schedule A – Listed Mineral Claims and Leases

Quartz Leases

Grant Number	Lease Lot Number	Claim Label	Grant Number	Lease Lot Number	Claim Label
Y61620	OW00001	MINTO 1	Y62299	OW00034	MINTO 68
Y61621	OW00002	MINTO 2	Y62301	OW00035	MINTO 70
Y61622	OW00003	MINTO 3	Y62302	OW00036	MINTO 71
Y61623	OW00004	MINTO 4	Y61693	OW00230	DEF 1
Y61624	OW00005	MINTO 5	Y61694	OW00231	DEF 2
Y61625	OW00006	MINTO 6	Y61695	OW00232	DEF 3
Y61626	OW00007	MINTO 7	Y61696	OW00233	DEF 4
Y61627	OW00008	MINTO 8	Y61697	OW00234	DEF 5
Y61628	OW00009	MINTO 9	Y61698	OW00235	DEF 6
Y61629	OW00010	MINTO 10	Y61699	OW00236	DEF 7
Y61630	OW00011	MINTO 11	Y61700	OW00237	DEF 8
Y61631	OW00012	MINTO 12	Y61701	OW00238	DEF 9
Y61632	OW00013	MINTO 13	Y61703	OW00239	DEF 11
Y61633	OW00014	MINTO 14	Y61705	OW00240	DEF 13
Y61634	OW00015	MINTO 15	Y61706	OW00241	DEF 14
Y61635	OW00016	MINTO 16	Y61707	OW00242	DEF 15
Y61904	OW00017	MINTO 17	Y61708	OW00243	DEF 16
Y61905	OW00018	MINTO 18	Y61709	OW00244	DEF 17
Y61921	OW00019	MINTO 32	Y61710	OW00245	DEF 18
Y61923	OW00020	MINTO 34	Y61723	OW00246	DEF 31
Y61908	OW00021	MINTO 35	Y61724	OW00247	DEF 32
Y61909	OW00022	MINTO 36	Y61978	OW00248	DEF 33
Y61930	OW00023	MINTO 45	Y61979	OW00249	DEF 34
Y61931	OW00024	MINTO 46	Y61982	OW00250	DEF 37
Y61934	OW00025	MINTO 47	Y61983	OW00251	DEF 38
Y61935	OW00026	MINTO 48	Y66779	OW00252	DEF 79
Y61936	OW00027	MINTO 49	Y66780	OW00253	DEF 80
Y61937	OW00028	MINTO 50	Y66781	OW00254	DEF 81
Y61938	OW00029	MINTO 51	Y66782	OW00255	DEF 82
Y61939	OW00030	MINTO 52	Y66783	OW00256	DEF 83
Y62296	OW00031	MINTO 65	Y66784	OW00257	DEF 84
Y62297	OW00032	MINTO 66	Y76953	OW00258	DEF 1379
Y62298	OW00033	MINTO 67			

Quartz Claims

Grant Number	Claim Label	Grant Number	Claim Label	Grant Number	Claim Label
Y61702	DEF 10	Y61981	DEF 36	Y62016	DEF 71
Y61704	DEF 12	Y61984	DEF 39	Y62017	DEF 72
Y61711	DEF 19	Y61985	DEF 40	Y62018	DEF 73
Y61712	DEF 20	Y61986	DEF 41	Y62019	DEF 74
Y61713	DEF 21	Y61987	DEF 42	Y62020	DEF 75
Y61714	DEF 22	Y61988	DEF 43	Y62021	DEF 76
Y61715	DEF 23	Y61989	DEF 44	Y62022	DEF 77
Y61716	DEF 24	Y61990	DEF 45	Y62023	DEF 78
Y61717	DEF 25	Y61991	DEF 46	Y62300	MINTO 69
Y61718	DEF 26	Y61992	DEF 47	Y62303	MINTO 72
Y61719	DEF 27	Y61993	DEF 48	Y62304	MINTO 73
Y61720	DEF 28	Y61994	DEF 49	Y62305	MINTO 75
Y61721	DEF 29	Y61995	DEF 50	Y62306	MINTO 76
Y61722	DEF 30	Y61996	DEF 51	Y62307	MINTO 77
Y61906	MINTO 19	Y61997	DEF 52	Y62308	MINTO 78
Y61907	MINTO 20	Y61998	DEF 53	Y62309	MINTO 79
Y61910	MINTO 37	Y61999	DEF 54	Y62310	MINTO 80
Y61911	MINTO 38	Y62000	DEF 55	Y62311	MINTO 81
Y61914	MINTO 23	Y62001	DEF 56	Y62312	MINTO 82
Y61915	MINTO 24	Y62002	DEF 57	Y62313	MINTO 83
Y61916	MINTO 25	Y62003	DEF 58	Y62314	MINTO 84
Y61917	MINTO 26	Y62004	DEF 59	Y62315	MINTO 85
Y61918	MINTO 27	Y62005	DEF 60	Y62316	MINTO 86
Y61919	MINTO 28	Y62006	DEF 61	Y62317	MINTO 87
Y61920	MINTO 31	Y62007	DEF 62	Y62318	MINTO 88
Y61922	MINTO 33	Y62008	DEF 63	Y62319	MINTO 89
Y61926	MINTO 41	Y62009	DEF 64	Y76954	DEF 85
Y61927	MINTO 42	Y62010	DEF 65	Y76955	DEF 86
Y61928	MINTO 43	Y62011	DEF 66	Y76956	DEF 87
Y61929	MINTO 44	Y62012	DEF 67	Y77310	MINTO 94
Y61932	MINTO 29	Y62013	DEF 68	Y77311	MINTO 95
Y61933	MINTO 30	Y62014	DEF 69	Y78024	MINTO 96
Y61980	DEF 35	Y62015	DEF 70	Y78025	MINTO 97