



Department of Energy, Mines & Resources
PO Box 2703, Whitehorse, Yukon Y1A 2C6



June 7, 2018

File No: LQ00485

Metallic Minerals Corp.
Box 31215
Whitehorse, Yukon
Y1A 5P7

Dear Sir/Madam:

Re: Class 3 Quartz Mining Land Use Approval

Your application for a Class 3 approval has been approved and is subject to the attached conditions. The effective date of this approval will be June 7, 2018. All work, including restoration, must be completed by June 6, 2023, and inspected before full security and/or completion certificates can be applied for.

The attached 'Operational Guidelines' offer additional mitigations that would enable you to maximize the environmental performance of your program, but are not approval conditions.

Please ensure that pre-season and post-season reports are provided before and after each exploration season. Pre- and post-season reports assist the Mineral Resources Branch in monitoring exploration activity and reclamation. Not providing reports may result in additional security being required.

Please feel free to contact our office at (867) 996-2256 should you have any questions.

Regards,

Robert Savard
A/Chief, Mining Land Use

cc: EMR Natural Resources Officer, Compliance Monitoring and Inspections
ENV Environmental Affairs, Environmental Protection Branch



**MINING LANDS
MINERAL RESOURCES BRANCH
GOVERNMENT OF YUKON**

Pursuant to the *Quartz Mining Act* and *Quartz Mining Land Use Regulation*, the Chief, Mining Land Use hereby grants a Class 3 approval to:

Metallic Minerals Corp.
Box 31215
Whitehorse, Yukon
Y1A 5P7

APPROVAL NUMBER: LQ00485
PROPERTY NAME: McKay Hill
UNDERTAKING: Quartz
CLASS: Class 3 Approval
EFFECTIVE DATE: June 7, 2018
EXPIRY DATE: June 6, 2023

This approval shall be subject to the restrictions and conditions contained herein and to the restrictions and conditions contained in the *Quartz Mining Act* and the *Quartz Mining Land Use Regulation* made there under as proposed in Mining Land Use Application LQ00485.

Dated this June 7, 2018

A handwritten signature in black ink, appearing to read "Robert Savard", written over a horizontal line.

Robert Savard
A/Chief, Mining Land Use

**MINING LAND USE
APPROVAL
Class 3**

SCOPE OF APPROVAL:			
Claim Status Report (Appendix A)		LQ00485	
Operating Season	June 1 – October 15	McKay Hill	
PROJECT ACTIVITIES (ON-CLAIM):			
USE OF VEHICLES/EQUIPMENT			
Use of vehicles on existing roads or trails			<input checked="" type="radio"/> No <input type="radio"/> Yes
Gross vehicle weight		On-roads: >40t	On-trails: <20t
Off-road use of vehicles in summer			<input checked="" type="radio"/> No <input type="radio"/> Yes
Off-road use of vehicles in winter			<input checked="" type="radio"/> No <input type="radio"/> Yes
NEW & EXISTING ACCESS			
Upgrading of existing access	<input checked="" type="radio"/> No <input type="radio"/> Yes	Length: x km	Width: x m
New roads	<input type="radio"/> No <input checked="" type="radio"/> Yes	Length: 5 km	Width: 10 m
New trails	<input type="radio"/> No <input checked="" type="radio"/> Yes	Length: 10 km	Width: 10 m
New temporary trails	<input checked="" type="radio"/> No <input type="radio"/> Yes	Length: x km	Width: x m
Other new access:			
LINES & CORRIDORS			
Lines	<input type="radio"/> No <input checked="" type="radio"/> Yes	Length: 10 km	Width: 1.5 m
Corridors	<input checked="" type="radio"/> No <input type="radio"/> Yes	Length: x km	Width: x m
SITE PREPARATION			
Number of clearings per claim: 8 clearings per claim			
Number of clearings for helicopter pads and camps:		helipad clearings = 60m ² , drill pads clearings = 15m x 15m, camp clearing = 600m ²	
Removal of the vegetative mat			<input type="radio"/> No <input checked="" type="radio"/> Yes
EXPLORATION TRENCHING & BULK SAMPLING			
Hand-dug			<input type="radio"/> No <input type="radio"/> Yes
Mechanized			<input type="radio"/> No <input checked="" type="radio"/> Yes
Number: 200	Length: 25 m	Width: 2.5 m	Depth: 2 m
		Total volume: 25,000 m ³	
Bulk sampling		<input type="radio"/> No <input checked="" type="radio"/> Yes	Amount/year: 5,000 tons
Explosives		<input type="radio"/> No <input checked="" type="radio"/> Yes	Total amount: 5,000 kg
		Max. in 30 days: 1,000 kg	
EXPLORATION DRILLING			
TYPE	NUMBER OF HOLES	DEPTH (m)	
Reverse Circulation	50	5,000 m	
Diamond	100	5,000 m	
Rotary Air Blast	200	10,000 m	

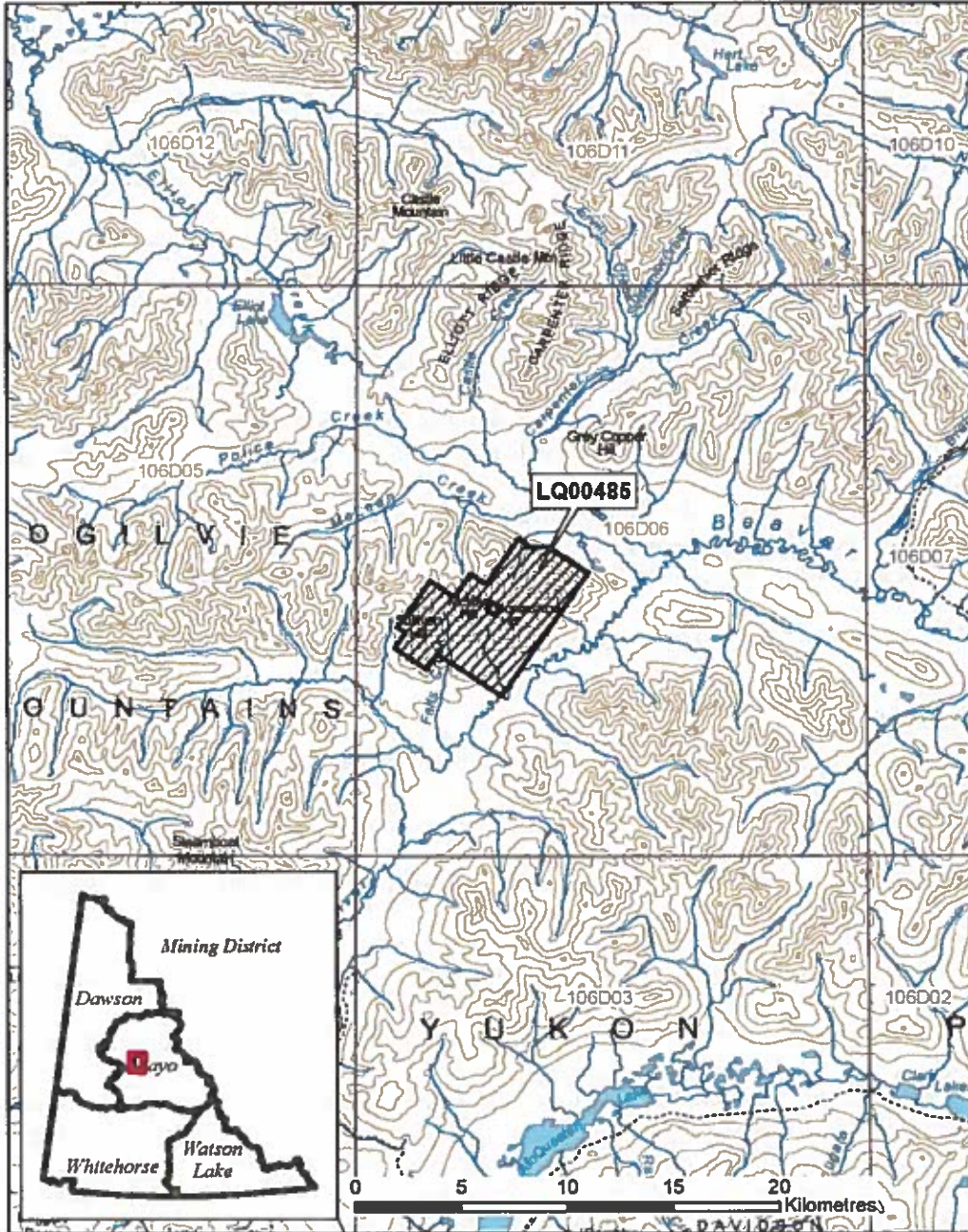
**MINING LAND USE
APPROVAL
Class 3**

FUEL STORAGE		
FUEL TYPE	STORAGE TYPE & CAPACITY	TOTAL VOLUME
Diesel	220L Drum	2,200 L
Gasoline	220L Drum	2,200 L
Jet A/B	220L Drum	2,200 L
Propane	100lb Tank	1,000 lb
FACILITIES & STRUCTURES		
Camp structures: 8 framed wall tents		
Number of persons in camp at any one time: 20	Number of person days: 2,740	
Construction of underground structures	● No ○ Yes	
Amount per year:	Amount per program:	

All other applicable legislation, regulations, laws, by-laws and ordinances must be complied with. Additional authorizations or approvals may be required. Any doubt as to whether an additional authorization or approval is required should be verified by a duly authorized official at the appropriate government body or bodies.

**MINING LAND USE
APPROVAL
Class 3**

**LQ00485
McKay Hill
Metallic Minerals Corp.**



**MINING LAND USE
APPROVAL
Class 3**

DEFINITIONS

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

“**Access road**” means a road that provides access to a public highway or to a private road;

“**Adverse effects**” of an exploration program means its adverse environmental or socio-economic effects and any adverse effects it may have on the existing or asserted aboriginal or treaty rights of any First Nation;

“**Chief**” means the Chief of Mining Land Use designated pursuant to the Act;

“**Clearing**” means an area that is cleared of trees, brush or vegetative mat for the purpose of establishing a campsite or carrying out mining exploration, but does not include an area cleared for the purpose of establishing a corridor or trail;

“**Corridor**” means a path from which trees and brush have been cut to accommodate a water line, fuel line or power line;

“**Effective date**” means the date this Approval comes into force as evidenced by the date of the signature of the Chief;

“**Exploration program**” means any activity or group of activities undertaken for the sole or principal purpose of assessing land for its suitability for the production of minerals;

“**Foundation**” means the part of a structure that penetrates the ground and supports the structure;

“**Isolated road**” means a road that does not provide access to a public highway directly or through a private road;

“**Inspector**” means an inspector designated pursuant to the Act;

“**Line**” means a line cut for the purpose of carrying out a geophysical, geological, or engineering survey;

“**Low ground pressure vehicle**” means a vehicle that applies 35 kPa of pressure or less to the ground surface;

“**Operator**” means a person who is engaging in an exploration program, or in development or production;

“**Person-day**” in respect of the use of a campsite, means the use of the campsite by one person during a period of 24 hours;

“**Response**” means a notice given by the Chief that indicates whether or not an exploration program may be carried out or that extends the time for the Chief’s review of a Notification or operating plan;

“**Road**” means a pathway for vehicular traffic the construction of which requires the movement of rock or earth;

“**Site**” means the area bounded by the sum of the mineral claims described above under ‘Scope of Approval’;

“**Summer**” means the period of a year that is not winter;

“**Trail**” means an access to a site within a claim or lease that is constructed with little or no movement of rock or earth; and

“**Trenching**” means excavation carried out on a mineral claim for the purpose of obtaining geological information;

“**Upgrading**”, in relation to a road, means re-establishing a road that has not been useable for more than five years by vehicles of a type the road was originally designed to serve, modifying a road to provide usability for vehicles that are of a different type than those for which the road was originally designed to serve and any other upgrading or modifying of a road, other than for maintenance or erosion control;

“**Vegetative mat**” means the organic surface of soil, characterized by the accumulation of organic matter, or partly decomposed organic matter, derived mainly from leaves, twigs, and woody materials, and includes the root mass of living vegetation;

“**Winter**” means the period of the year during which (a) the ground is frozen sufficiently to support a vehicle, other than a low ground pressure vehicle, without rutting or gouging of the surface; and (b) there is a sufficient amount of snow on the ground to produce a packed base of 10 cm.

PART ONE – GENERAL REQUIREMENTS

Duration of Approval

- 1.0 This approval is valid upon signature of the Chief until the expiry date. In the event that claims lapse, or that agreements to operate on claims are dissolved, the approval becomes null and void for that portion of the operating plan, where there is no right to the minerals.

Compliance with Operating Conditions

- 1.1 All mineral exploration activities must comply with the Operating Conditions contained in Schedule 1 of the *Quartz Mining Land Use Regulation* and within the approval. Where there is a difference between the operating conditions and approval, the terms of this approval shall prevail. These Operating Conditions are enforceable.

Reporting Requirements

Contact Information

- 1.2 Submissions and reports to the Chief should be made to both the following addresses:

Chief, Mining Land Use
Box 2703, K-9
Whitehorse, Yukon
Y1A 2C6

Mining Lands Officer
Box 10, K-MA
Mayo, YT Y0B 1G0
mayo.mining@gov.yk.ca

- 1.3 The contact for the Operator will be:

Metallic Minerals Corp.
Box 31215
Whitehorse, Yukon
Y1A 5P7
Sue Craig
Sue.craig@metallic-minerals.com
(604) 629-7800

Pre-season and Post-season Reporting

- 1.4 A report shall be submitted at the beginning of each mining season outlining the exploration activities planned for the season including the proposed locations.
- 1.5 A report shall be submitted at the end of each mining season indicating exploration activities completed during that season. This report shall include but is not limited to:
- detailed mapping of all areas worked;
 - location of new construction;
 - new areas of disturbance;
 - map data, in the form of SHP files or GIS compatible, of all new roads and trails;
 - map data, in the form of SHP files or GIS compatible, of all reclaimed roads and trails;
 - areas of permafrost encountered;
 - total disturbed area;

- pre-activity survey results, if applicable;
 - reclamation activities; and
 - documentation produced by environmental monitors.
- 1.6 The operator shall contact the Mayo Mining Inspections Office (Compliance, Monitoring and Inspections) at (867) 996-2568 at least 14 days prior to commencing the field season.
- 1.7 The operator shall contact the Mayo Mining Inspections Office (Compliance, Monitoring and Inspections) at (867) 996-2568 at least 14 days prior to leaving the site at the end of the operation.

Spill Reporting

- 1.8 All spills must be reported immediately to the 24-Hour Yukon Spill Reporting Line (867) 667-7244 and to the Mayo Mining Inspections Office (Compliance, Monitoring and Inspections) at (867) 996-2568.
- 1.9 An operator who takes an emergency remedial measure shall, as soon as possible but not later than 10 days after taking it, send a written report to the Chief describing the duration, nature and extent of the emergency and the measures taken to respond to it.

Heritage Reporting

- 1.10 All paleontological resources uncovered during operations shall be reported to the Yukon Paleontology Program, Government of Yukon in Whitehorse at (867) 667-8089 or (867) 667-5386 and the Chief.
- 1.11 All archaeological resources uncovered during operations shall be reported to the Yukon Archaeology Program, Government of Yukon in Whitehorse at (867) 667-3771 or (867) 667-5386 and the Chief.
- 1.12 The report(s) developed for Section(s) 2.16 and 2.17, shall be submitted to Government of Yukon – Heritage Resources Unit, Cultural Services Branch.

Wildlife Reporting

- 1.13 All incidents with wildlife shall be reported to the District Conservation Officer in Mayo (Northern Tutchone Region) at (867) 996-2247.

PART TWO – PROJECT SPECIFIC OPERATING CONDITIONS

Schedule 1 Operating Conditions (Appendix B)

The operator is bound by the Schedule 1 Operating Conditions per the *Quartz Mining Land Use Regulation*. In addition to the Schedule 1 Operating Conditions, the operator must also comply with the following terms and conditions:

Erosion Control and Permafrost

- 2.0 The operator shall insulate the ground surface beneath all temporary structures and temporary facilities used in the project where permafrost is present to:
- a) prevent any vegetation from being removed; and
 - b) prevent the ground from settling or eroding.

Trenching

- 2.1 Open trenches shall be sloped at one end to avoid entrapment of wildlife.
- 2.2 The operator must ensure that all employees and contractors working at the trench sites are aware of the operating conditions for trenching.

Solid Waste

- 2.3 The operator shall keep all garbage, including kitchen waste, in a container that prevents access by bears and other wildlife, until properly disposed of in accordance with the *Solid Waste Regulations*.
- 2.4 When burning kitchen waste on site it must be burned regularly to reduce odours that might attract wildlife and be burned to ash by forced air or fuel fired incineration.

Petroleum Fuel and Hazardous Substances

- 2.5 The operator shall, with indelible marker or paint, clearly identify the owner, the contents and the date on fuel drums to establish and manage ownership and responsibility.
- 2.6 All fuel cache(s) must be protected with an earthen berm and flagged to prevent spills resulting from accidental contact with heavy equipment. Flags should be visible above the snow pack.
- 2.7 The location of any spills shall be clearly marked with stakes or flags.

Drilling

- 2.8 The operator must ensure that all employees and contractors working at the drill sites are aware of the operating conditions for drilling.

Bulk Sampling

- 2.9 The proponent shall expedite the removal of bulk samples from the property.

2.10 Bulk samples stored on site shall be located at least 30 m from any water body.

2.11 Bulk samples shall be stored on an impermeable liner and in a fashion that poses no acid rock drainage/metal leaching risk, until removed from the property.

Wildlife

2.12 The Proponent shall carry out all phases of the project in a manner that protects and avoids harming, killing or disturbing migratory birds or destroying or taking their nests or eggs.

2.13 If active bird nests are discovered, project activities shall be postpone in the nesting area until nesting is completed.

Vehicle Use

2.14 Equipment shall be cleaned of foreign soil and plant material prior to moving it into the project property.

Invasive Species

2.15 The Proponent shall familiarize themselves with the types and management of invasive species in the Yukon. The Yukon Invasive Species Council (YISC) document "Why Should I Care About Invasive Species?" will provide guidance, found at the following site: http://www.yukoninvasives.com/pdf_docs/WhyshouldIcare2011_sm.pdf. (DD4)

Heritage

2.16 A Heritage Resources Overview Assessment shall be completed in advance of ground disturbing activities. Areas with elevated potential for the presence of archaeological or historic sites shall be avoided until a heritage resources impact assessment can be completed.

2.17 A Heritage Resources Impact Assessment shall be completed in advance of ground disturbing activities in the areas with elevated potential for the presence of archaeological or historic sites.

2.18 Upon discovery of a heritage resource, the Proponent shall notify the First Nation of Na-Cho Nyak Dun, in addition to Government of Yukon, Chief of Mining Lands and Yukon Heritage.

PART THREE – RECLAMATION AND/OR DECOMMISSIONING

3.0 Reclamation and/or decommissioning shall be progressive in nature where possible and will occur prior to the expiry of the exploration program or prior to the expiry of this approval, whichever comes first, according to standards outlined in the operating conditions, unless otherwise specified by the Chief.

3.1 Debris, equipment, fuel barrels, scrap metal and other waste at the work site shall be completely disposed of, so as not to attract wildlife, by removal to an authorized disposal site at the cessation of the exploration program.

- 3.2 Structures must be removed and the site restored at the end of the exploration program or prior to the expiry of this approval, whichever comes first, to a level of utility comparable to its previous level of utility.
- 3.3 If an amendment to this approval or new approval is granted, for the claims within the scope of this approval (Appendix A), all outstanding reclamation continues to be the responsibility of the operator.

PART FOUR – OTHER MATTERS

- 4.0 Security may be required at any time by the Chief.
- 4.1 Notice of Schedule III must be provided to the Yukon Water Board ten (10) days prior to use of water.
- 4.2 Attached (Appendix C) are the commitments that form part of this operating plan.



LQ00485 Appendix A Claim Status Report

15 May 2018

Claim Name and Nbr.	Grant No.	Expiry Date	Registered Owner	% Owned	NTS #'s	Grouping	Permit
R MK 1	YD34989	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 2	YD34988	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 3	YD34987	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 4	YD34986	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 5	YD34985	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 6	YD34984	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 7	YD34983	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 8	YD34982	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 9	YD34981	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 10	YD34980	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 11	YD34979	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 12	YD34978	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 13	YD34977	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 14	YD34976	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 15	YD34975	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 16	YD34974	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 17	YD34973	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 18	YD34972	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 19	YD34971	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 20	YD34970	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 21	YD34969	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 22	YD34968	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 23	YD34967	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 24	YD34966	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 25	YD34965	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 26	YD34964	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 27	YD34963	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485

Left column indicator legend:

- R - Indicates the claim is on one or more pending renewal(s)
- P - Indicates the claim is pending.

Right column indicator legend:

- L - Indicates the Quartz Lease
- F - Indicates Full Quartz fraction (25+ acres)
- P - Indicates Partial Quartz fraction (<25 acres)

Total claims selected : 170

- D - Indicates Placer Discovery
- C - Indicates Placer Codiscovery
- B - Indicates Placer Fraction



Claim Status Report

15 May 2018

Claim Name and Nbr.	Grant No.	Expiry Date	Registered Owner	% Owned	NTS #'s	Grouping	Permit
R MK 28	YD34962	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 29	YD34961	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 30	YD34960	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 31	YD34959	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 32	YD34958	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 33	YD34957	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 34	YD34956	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 35	YD34955	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 36	YD34954	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 37	YD34953	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 38	YD34952	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 39	YD34951	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 40	YD34950	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 41	YD34949	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 42	YD34948	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 43	YD34947	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 44	YD34946	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 45	YD34945	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 46	YD34944	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 47	YD34943	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 48	YD34942	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 49	YD34941	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 50	YD34940	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 51	YD34939	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 52	YD34938	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 53	YD34937	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R MK 54	YD34936	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485

Total claims selected : 170

Left column indicator legend:

- R - Indicates the claim is on one or more pending renewal(s)
- P - Indicates the claim is pending.

Right column indicator legend:

- L - Indicates the Quartz Lease.
- F - Indicates Full Quartz fraction (25+ acres)
- P - Indicates Partial Quartz fraction (<25 acres)
- D - Indicates Placer Discovery
- C - Indicates Placer Codiscovery
- B - Indicates Placer Fraction



Claim Status Report

15 May 2018

Claim Name and Nbr.	Grant No.	Expiry Date	Registered Owner	% Owned	NTS #'s	Grouping	Permit
R Snoose 1 - 20	YC56719 - YC56738	2024/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
R Snoose 21 - 90	YD11201 - YD11270	2023/12/01	Metallic Minerals Corp.	100.00	106D06	HM02839	LQ00485
Snoose 91 - 116	YF29091 - YF29116	2018/10/18	Metallic Minerals Corp.	100.00	106D06		LQ00485

Criteria(s) used for search:

CLAIM DISTRICT: 1000003 CLAIM STATUS: ACTIVE & PENDING OWNER(S): METALLIC MINERALS CORP.
REGULATION TYPE: QUARTZ

Left column indicator legend:

- R - Indicates the claim is on one or more pending renewal(s)
- P - Indicates the claim is pending

Right column indicator legend:

- L - Indicates the Quartz Lease
- F - Indicates Full Quartz fraction (25+ acres)
- P - Indicates Partial Quartz fraction (<25 acres)

Total claims selected : 170

- D - Indicates Placer Discovery
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APPENDIX B

Quartz Mining Land Use Regulation

Schedule 1 **Operating Conditions**

Removal of the Vegetative Mat

1. If the vegetative mat must be removed to carry out exploration activities, it must be removed so as to protect the seed and root stock contained within the mat and be stored separately from other overburden or bedrock removed for use in re-establishing the vegetative mat when the exploration program ceases.

Re-establishment of the Vegetative Mat

2. (1) All vegetated areas disturbed by exploration activities, including fuel and waste storage areas, clearings, corridors, temporary trails, camps and supporting infrastructure, and trenches and drill sites, must be left in a condition conducive to re-vegetation by native plant species or other species adaptable to the local environment to encourage re-vegetation comparable to similar, naturally occurring, environments in the area.

(2) Conditions conducive to re-vegetation include provision of adequate soil layer with moisture retaining ability, no soil contamination by hydrocarbons or other hazardous substances, provision of adequate seed or root stock, and contoured or otherwise stable slopes.

3. If adequate seed or root stock is not naturally available, re-seeding or transplanting of vegetation is required. Only non-invasive species may be used for re-seeding or transplanting. Consult with the Mining Inspector prior to seeding.

Erosion Control and Permafrost

4. All areas disturbed during an exploration program must be re-sloped, contoured or otherwise stabilized to prevent long-term soil erosion, slumping and subsidence.
5. All exploration activities must be carried out to avoid or minimize damage to and loss of permafrost.

Trenching

6. Trenching carried out by hand or using hand-held tools must be methodical. All trenches must be stabilized and marked to minimize risk to the public.
7. Trenches constructed with mechanized equipment must be back filled by first depositing any removed overburden and bedrock and then replacing the vegetative mat that was removed to construct the trench.

Historic Objects and Burial Grounds

8. Exploration activities must not be carried out within 30m of a known archeological site unless the Chief indicates, in writing, that such activities may be carried out.
9. Any sites containing archeological objects, paleontological objects or human remains or burial sites discovered in the course of carrying out an exploration program must be immediately marked and protected from further disturbance and, as soon as practicable, the discovery reported to the Chief. No further activities may be carried out within 30m of the site until the Chief indicates, in writing, that activities may be resumed.

Solid Waste

10. All solid waste, including debris, equipment, barrels, drums, and scrap metal, must be safely stored on the site of the exploration program while the program is carried out and must be disposed of in accordance with the *Solid Waste Regulation* when the program ceases.
11. Camps must be kept clean and tidy.

Petroleum Fuel and Hazardous Substances

12. If petroleum fuel storage capacity exceeds 4000 L, a secondary containment structure must be constructed. The containment structure must be made of a material impervious to petroleum products and:
 - a) if there is a single storage tank, be of sufficient size to accommodate at least 110% of the capacity of the storage tank; or
 - b) if there is more than one storage tank, be of sufficient size to accommodate 110% of the capacity of the largest storage tank or 10% of the total capacity of all the tanks, whichever is larger.
13. All petroleum products, including waste petroleum products, and any other hazardous substances must be stored in a secure fashion no less than 30m from the ordinary high water mark of any water body.
14. All petroleum products, including waste petroleum products, and any other hazardous substance, must be transferred and handled without spillage.
15. All petroleum products and any other hazardous substances must be removed from the site of the exploration program when the program ceases.
16. All waste petroleum products and any other special waste, as defined in the *Special Waste Regulations*, generated in the course of carrying out the exploration program must be disposed of in accordance with the *Special Waste Regulations* when the program ceases.

Spills and Spill Contingency Plans

17. A spill contingency plan for petroleum products and other hazardous waste must be prepared and posted in the camp and at all fuel handling locations used in carrying out the exploration program.

18. All spill clean-up equipment and material must be maintained in a state of readiness sufficient at all times to contain and clean-up any hazardous material spills.
19. If a spill occurs, the spill contingency plan must be immediately implemented and notice given to the 24-hour Yukon Spill Report Line. As soon as practicable, an inspector must be contacted. Whatever remedial action is required to clean-up the spill and reclaim the affected land and water must be taken.

Use of Vehicles

20. Vehicles must be maintained and operated to prevent spills of fuel, lubricants, coolants and oil.

Timber and Brush

21. Cut brush must not be piled so that it blocks movement of wildlife or people.
22. Leaning trees created by cutting of lines, corridors, temporary trails, and clearings must be felled.
23. When it is economically viable to do so, timber suitable for sale must be salvaged and stockpiled.
24. All risk of fire hazard must be avoided.

Drilling

25. All reasonable efforts must be made when drilling to minimize the impact on wildlife and the public.
26. Vegetation other than that within a drill sump, must not be covered with drill cuttings.
27. Core must be stored in a stable fashion.
28. Drill mud must be re-circulated when possible.
29. All drill fluids must be contained in a sump.
30. Drill holes that pose a hazard or that lead to ground water must be plugged to prevent flow of water to the surface.
31. The location of drill holes must be marked on the ground by flagging or other suitable means at the location of the drill hole.
32. Drilling waste, including fluid, cuttings and mud must not be left within 30m of a water body.

Roads, Trails, and Off-road Trail Use

33. All vehicles must be operated to avoid rutting and gouging of roads and trails.
34. Off road and trail routes must be reconnoitered and must be used in a way that minimizes ground disturbance, including damage to permafrost and sensitive wildlife habitat.
35. If rutting, gouging, ponding or permafrost degradation occurs off road or trail, vehicle use must be suspended or relocated to ground that is capable of bearing the weight of the vehicle without causing such damage.
36. Use of skids on permafrost or wet ground is only permitted outside of winter where it is not reasonable to use any other means of transporting equipment.
37. Routes for temporary trails must be reconnoitered and flagged.
38. In addition to any remedial action required in relation to item 2 of this schedule, temporary trails must be blocked to prevent further vehicular access.

Release of Sediment

39. All reasonable care must be taken in carrying out exploration activities near or adjacent to a water body to prevent sediment from entering a water body, unless otherwise permitted by law.

Use of Explosives

40. Explosives must be set off in a manner to minimize impact on wildlife and the public to ensure that forest fires, unplanned landslides, or artificial damming of water bodies does not occur.

Waste Rock

41. Waste rock piles must be located at least 30m from any water body and be physically stable.
42. Waste rock containing sulfides must be returned underground.
43. Access to underground openings must be blocked to prevent access by wildlife and people.

APPENDIX C

Proponent Commitments

- Waste, including kitchen/food waste, must be managed properly. Proper food storage, handling and disposal of cooking waste will help prevent attracting wildlife. Camp kitchen, sleeping tents and work sites need to be kept clean. No food is to be stored outside of the kitchen area. All food waste will be burned on a regular basis, burned garbage must be secured and regularly disposed of at a registered waste disposal facility.
- Other attractants such as solid waste and (potentially) hazardous waste will be securely stored and transported to a regulated landfill on a regular basis.
- Wildlife that are a nuisance or are frequenting an area will be reported immediately to the Local Conservation officer.
- The camp will be secured with an electrified bear-fence. This bear fence will be taken down at the end of each season.
- Whenever possible, no surface disturbance will occur during the core migratory bird breeding period (May 1st-July 31st).
- Pre-disturbance site evaluations will be completed to prevent disturbance of migratory bird nest-sites.
- All nesting sites observed will be recorded and flagged at a distance to prevent potential disturbance. Nesting site locations will be reported to the on-site Project Manager.
- Helicopter will fly along easting 48000 (edge of raptors WKA) and at elevation of at least 1500m.
- Air traffic will be kept to an absolute minimum.
- MMG will be mindful of local wildlife populations and will adhere to “Flying in Sheep (and Caribou) Country.”
- If sheep are encountered, the pilot will be instructed to fly at an angle and turn away from the area so as to minimize disturbance.
- Pre-activity surveys (look, listen and observe) for Collared Pika will occur prior to conducting disturbance of any kind in an area. If sign of Pika (nest-sites, urine) or Pika are observed, the/their location will be adequately documented, reported to the on-site Project Manager, the area will be flagged out at a distance and activity will not occur in the area until the Pika is no longer present.

- All Pika observations will be annually reported in the Post-Season report which will be provided to YG Environment and the Yukon Conservation Data Centre.
- Progressive reclamation of disturbed areas.
- Progressive reclamation of disturbed areas.
- Monitoring Protocol for Waste Rock.
- Trenches, test-pits and open-cuts will be backfilled and re-contoured to pre-construction topography to encourage native plant species revegetation.

Operational Guidelines

Exploration activities

The Yukon Chamber of Mines has developed an informative Best Management Practices document that should be reviewed in the context of project activities. The Operator should reference the following document when planning and conducting project activities:

- Yukon Mineral and Coal Exploration Best Management Practices and Regulatory Guide (http://yukonminers.org/wp-content/uploads/2017/06/BMP_RG_Aug29_FINAL_WebFile.pdf).

Bears and other wildlife

To increase worker safety, reduce potential conflicts and prevent unnecessary wildlife mortality, the Operator should implement pertinent components of:

- Guidelines for Industrial Activity in Bear Country for the Mineral Exploration, Placer Mining and Oil & Gas Industries (http://www.env.gov.yk.ca/publications-maps/documents/Guidelines_for_Industrial_Activity_in_Bear_Country.pdf)
- If an electric fence is an appropriate precaution, or a requirement, the Operator should reference the following comprehensive and highly informative guide: Reducing Wildlife Conflict with Electric Fencing: A Beginner's Guide (<http://www.env.gov.yk.ca/publications-maps/documents/ElectricFencing.pdf>)

Invasive species

To minimize the risk and consequences of spreading invasive plant species the Operator should:

- Become familiar with the Yukon invasive species and how to manage them by referring to the Yukon Invasive Species Council document, "Why Should I Care About Invasive Species" (http://yukoninvasives.com/pdf_docs/WhysouldIcare2011_sm.pdf)

Heritage Resources

To better understand how to manage potential impacts to heritage resources, the Operator should refer to the following document(s):

- Mineral Exploration Best Management Practices for Heritage Resources (http://www.tc.gov.yk.ca/pdf/Mineral_Exploration_BMP_for_Heritage_Resources.pdf)
- Best Management Practices for Burial Sites and Human Remains in Yukon (http://www.tc.gov.yk.ca/pdf/BurialSites_BMP_2014.pdf)

Work in/near water

Project activities have the potential to affect water quantity, quality and/or rate of flow. The Operator should provide for the protection of water by applying practices described in:

- Best Management Practices for Works Affecting Water in Yukon (http://www.env.gov.yk.ca/publications-maps/documents/bestpractes_water.pdf).

Aircraft use

Project activities are authorized in an area known to be inhabited by sheep and/or caribou. The Operator and/or aircraft pilots should plan flight paths and protocols based on the published guideline(s):

- Flying in Sheep Country: How to Minimize Disturbance from Aircraft (http://www.env.gov.yk.ca/publications-maps/documents/flying_in_sheep_country.pdf).
- Flying in Caribou Country: How to Minimize Disturbance from Aircraft (http://www.env.gov.yk.ca/publications-maps/documents/flying_caribou_country.pdf).

