



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



March 12, 2018

File No: LQ00474

Blind Creek Resources Ltd.  
804-750 W. Pender St.  
Vancouver, BC  
V6C 2T7

Dear Sir/Madam:

**Re: Class 4 Quartz Mining Land Use Approval**

Your application for a Class 4 approval has been approved and is subject to the attached conditions.

A security deposit is a condition of this Class 4 approval and will be determined following a confirmed cost assessment and analysis of the Access Management and Reclamation Plan.

In response to a letter, sent by Mineral Resources Branch (MRB) on February 6, 2018, requesting initial security and outlining security collection options, Blind Creek Resources Ltd. selected a progressive security collection approach. As such, initial security will be based on a detailed work plan for the first operating season. This information shall be submitted to the Chief of Mining Lands at least 30 days prior to the commencement of work.

In each year to follow, the security requirement will be reviewed and adjusted according to additional activities proposed for the season and reclamation completed in the previous season. To facilitate this assessment, please ensure that pre-season and post-season reports are provided. Not providing reports may result in additional security being required.

The effective date of this approval will be March 12, 2018 however, until security is provided, no work or undertakings that have been identified to require financial security may be undertaken.

To be clear, financial security is required for any work conducted on the new road access proposed, upgrading of existing road access proposed and the proposed air strip. Also, an Access Management and Reclamation Plan shall be submitted to the Chief for review and approval prior to the construction of new access or alteration of existing access at site.

All work, including reclamation, must be completed by March 11, 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 feel free to contact our office at (867) 996-2256 should you have any questions.

Regards,

A handwritten signature in blue ink, appearing to be "B. Young", written over the word "Regards,".

Briar Young  
Chief, Mining Land Use

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

## 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](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/bestpractes\\_water.pdf](http://www.env.gov.yk.ca/publications-maps/documents/bestpractes_water.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/WhyshouldIcare2011\\_sm.pdf](http://yukoninvasives.com/pdf_docs/WhyshouldIcare2011_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](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](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](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](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](http://www.env.gov.yk.ca/publications-maps/documents/flying_caribou_country.pdf)).



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

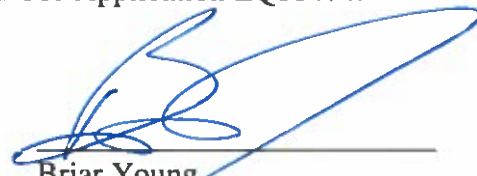
Pursuant to the *Quartz Mining Act* and *Quartz Mining Land Use Regulation*, the Chief, Mining Land Use hereby grants a Class 4 approval to:

Blind Creek Resources Ltd.  
804-750 W. Pender St.  
Vancouver, BC  
V6C 2T7

APPROVAL NUMBER: LQ00474  
PROPERTY NAME: Blende  
UNDERTAKING: Quartz  
CLASS: Class 4 Approval  
EFFECTIVE DATE: March 12, 2018  
EXPIRY DATE: March 11, 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 LQ00474.

Dated this March 12, 2018



Briar Young  
Chief, Mining Land Use

**MINING LAND USE  
APPROVAL  
Class 4**

<b>SCOPE OF APPROVAL:</b>				
Claim Status Report (Appendix A)			LQ00474	
Operating Season	May 1 – October 31		Blende	
<b>PROJECT ACTIVITIES (ON-CLAIM):</b>				
<b>USE OF VEHICLES/EQUIPMENT</b>				
Use of vehicles on existing roads or trails			<input type="radio"/> No <input checked="" type="radio"/> Yes	
Gross vehicle weight – within design limits or tolerances of the road/trail or:		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	
<b>NEW &amp; EXISTING ACCESS</b>				
Upgrading of existing roads	<input type="radio"/> No <input checked="" type="radio"/> Yes	Length: 30 km	Width: 5 m	
Existing Roads	<input type="radio"/> No <input checked="" type="radio"/> Yes	Length: 2.4 km	Width: 5 m	
New roads	<input type="radio"/> No <input checked="" type="radio"/> Yes	Length: 15 km	Width: 5 m	
Total roads allowed:		Length: 17.4 km	Width: 5 m	
New trails	<input checked="" type="radio"/> No <input type="radio"/> Yes	Length: x km	Width: x m	
New temporary trails	<input checked="" type="radio"/> No <input type="radio"/> Yes	Length: x km	Width: x m	
Other new access: construction of an airstrip (900 m x 20 m)				
<b>LINES &amp; CORRIDORS</b>				
Lines (80 lines, 0.9 km each)	<input type="radio"/> No <input checked="" type="radio"/> Yes	Length: 72 km	Width: 0.5 m	
Corridors	<input checked="" type="radio"/> No <input type="radio"/> Yes	Length: x km	Width: x m	
<b>SITE PREPARATION</b>				
Number of clearings per claim: 20		Area: 36 m <sup>2</sup> (cat drill) and 150 m <sup>2</sup> (heli-drill)		
Number of clearings for helicopter pads: 15		Area: up to 100 m <sup>2</sup> each		
Number of clearings for camps: 1		Area: up to 4500 m <sup>2</sup>		
Removal of the vegetative mat			<input type="radio"/> No <input checked="" type="radio"/> Yes	
<b>EXPLORATION TRENCHING &amp; BULK SAMPLING</b>				
Hand-dug			<input type="radio"/> No <input checked="" type="radio"/> Yes	
Mechanized			<input type="radio"/> No <input checked="" type="radio"/> Yes	
Number: 20	Length: 30 m	Width: 1.5 m	Depth: 2 m	Total volume: 1800 m <sup>3</sup>
Bulk sampling		<input checked="" type="radio"/> No <input type="radio"/> Yes		Amount/year: x tonnes
Explosives		<input checked="" type="radio"/> No <input type="radio"/> Yes	Total amount: x kg	Max. in 30 days: x kg
<b>EXPLORATION DRILLING</b>				
TYPE	NUMBER OF HOLES		DEPTH (m)	
Diamond	400		120 000	

**MINING LAND USE  
APPROVAL  
Class 4**

<b>FUEL STORAGE</b>		
<b>FUEL TYPE</b>	<b>STORAGE TYPE</b>	<b>CAPACITY</b>
Diesel	Tank/drums	37 000 L
Gasoline	Drums	5125 L
Jet fuel	Drums	20 500 L
Propane	Pigs/cylinders	4000 lbs
<b>FACILITIES &amp; STRUCTURES</b>		
Camp structures: trailers and tent frames		
Number of persons in camp at any one time: 50	Number of person days: 9000	
Construction of underground structures		<input checked="" type="radio"/> No <input type="radio"/> Yes
Amount per year: N/A	Amount per program: N/A	

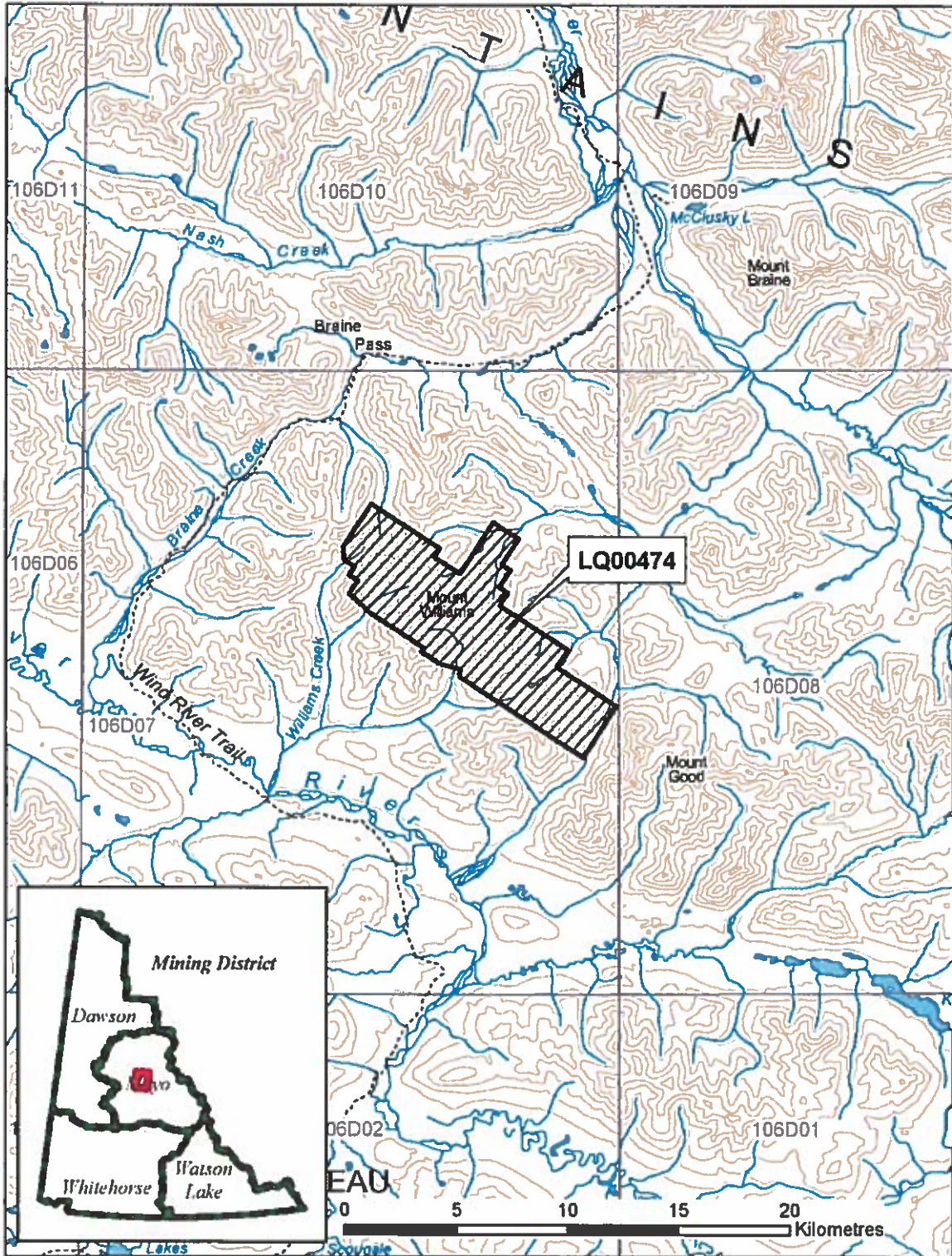
All other applicable legislation, regulations, laws, by-laws and ordinances must be complied with. Additional authorizations or approvals may be required. Any doubt as to whether an additional authorization or approval is required should be verified by a duly authorized official at the appropriate government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



**MINING LAND USE  
APPROVAL  
Class 4**

**LQ00474  
Blende**

**Blind Creek Resources Ltd.**



## 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

The contact for the Operator will be:  
Blind Creek Resources Ltd.  
804-750 W. Pender St.  
Vancouver, BC  
V6C 2T7  
Tom Kennedy  
tomkenedy@shaw.ca  
604-682-2928

### **Pre-season and Post-season Reporting**

- 1.3 A report shall be submitted at the beginning of each mining season outlining the exploration activities planned for the season including the proposed locations.
- 1.4 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) 2.11-2.12, shall be submitted to Government of Yukon – Mining Lands, Mineral Resources Branch and the 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.
- 1.14 The operator shall maintain, and submit annually to the Chief of Mining Land Use, a wildlife log for sheep and caribou sightings within the project area. Prior to annual exploration activities, the proponent shall contact the Chief of Mining Land Use and Regional Biologist to review the wildlife log and identify any adaptive management measures to be taken.

## **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.

#### **Road Construction, Road Upgrading and Airstrip Construction**

- 2.9 An Access Management and Reclamation Plan shall be submitted to the Chief for review and approval 90 days prior to the construction of new access or alteration of existing

access. The Chief may require any additional information that they consider necessary. The approved plan will be incorporated as a condition of approval LQ00474.

- 2.10 The Access Management and Reclamation Plan shall detail the locations of existing and proposed roads; road construction and upgrading; operating procedures; maintenance; water, dust and erosion management; and, final decommissioning and reclamation.
- 2.11 The Access Management and Reclamation Plan shall detail methods for airstrip construction, drainage, maintenance, and final decommissioning and reclamation.
- 2.12 The operator shall submit, as a part of their annual post-season report, detailed maps and information regarding all new access development and upgrading of existing access. In addition, as per Part 3, term 3.10, the report shall include details regarding ongoing reclamation.

### **Wildlife**

- 2.13 The operator shall pause exploration activity on alpine plateaus and benches from September 15 to October 15, if caribou are within 1 km of active work areas.
- 2.14 Helicopter activity shall not occur within 3.5 km of the sheep lambing wildlife key area between May 1 and June 15, when safe to do so, and with the exception of airstrip use.

### **Heritage Resources**

- 2.15 A Heritage Resources Overview Assessment shall be completed in advance of ground disturbing activities.
- 2.16 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.

### **Security**

- 2.17 Security will be determined by the Chief based on the amount of new access proposed (15 km), access developed under previous approvals (2.4 km), and upgrading of existing access proposed on an annual basis as stated in the pre-season reports.
- 2.18 Security must be paid within thirty (30) days of receiving the written notice from the Chief.
- 2.19 Adjustments to the initial security may be required at any time by the Chief.
- 2.20 Any changes to the security requirements as a result of Part 3, term 2.19 shall become a term of the approval and the operator must furnish security within thirty (30) days of receiving the written notice from the Chief.
- 2.21 Security will be retained as per Section 139 of the *Quartz Mining Act* and section 18 of the *Quartz Mining Land Use Regulation*.

### **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.

# LQ00474 Appendix A Claim Status Report

Claim Name and INbr.	Grant No.	Expiry Date	Registered Owner	% Owned	NITS #'s	Grouping	Permit
R Max 1 - 64	YC50636 - YC50699	2020/08/23	Blind Creek Resources Ltd.	100.00	106D07	HM02859	LQ00474
R Max 66 - 77	YC50700 - YC50711	2020/08/23	Blind Creek Resources Ltd.	100.00	106D07	HM02859	LQ00474
R Max 78 - 85	YC50712 - YC50719	2018/08/23	Blind Creek Resources Ltd.	100.00	106D07	HM02859	LQ00474
R Max 86 - 91	YC50720 - YC50725	2020/08/23	Blind Creek Resources Ltd.	100.00	106D07	HM02859	LQ00474
R Max 92 - 99	YC50726 - YC50733	2018/08/23	Blind Creek Resources Ltd.	100.00	106D07	HM02859	LQ00474
R Max 100 - 105	YC50734 - YC50739	2020/08/23	Blind Creek Resources Ltd.	100.00	106D07	HM02859	LQ00474
R Max 106 - 113	YC50740 - YC50747	2018/08/23	Blind Creek Resources Ltd.	100.00	106D07	HM02859	LQ00474
R Max 114 - 153	YC50748 - YC50787	2020/08/23	Blind Creek Resources Ltd.	100.00	106D07	HM02859	LQ00474
R Max 154 - 161	YC54978 - YC54985	2018/12/08	Blind Creek Resources Ltd.	100.00	106D07	HM02859	LQ00474
R Mix 1 - 16	YC09985 - YC10000	2020/03/28	Blind Creek Resources Ltd.	100.00	106D07	HM02859	LQ00474
R Trax 1 - 28	YC39822 - YC39849	2019/09/21	Blind Creek Resources Ltd.	100.00	106D07	HM02859	LQ00474
R Trix 1 - 46	YC11723 - YC11768	2020/04/21	Blind Creek Resources Ltd.	100.00	106D07	HM02859	LQ00474
R Trix 47 - 56	YC32293 - YC32302	2022/09/21	Blind Creek Resources Ltd.	100.00	106D07	HM02859	LQ00474

**Criteria(s) used for search:**

CLAIM DISTRICT: 1000003 CLAIM STATUS: ACTIVE & PENDING DOCUMENT NUMBER: LQ00474 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 : 260

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



## 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

#### *Wildlife and Wildlife Habitat*

- The Proponent will follow the guidelines set out in “Flying in Sheep Country: How to minimize Disturbance from Aircraft” and “Flying in Caribou Country: How to minimize Disturbance from Aircraft” (YOR 2017-0156-003-1)
- Ground based activities within 1 km of areas where ewes and lambs are observed during lambing season (May 1 to June 15) will not occur (YOR 2017-0156-003-1)
- Airplane use will avoid this sheep lambing area during sheep lambing season (May 1 to June 15) (YOR 2017-0156-003-1)
- Helicopter activity will be limited during sheep lambing season (May 1 to June 15) (YOR 2017-0156-003-1)
- Progressive and final reclamation will be undertaken (YOR 2017-0156-003-1)
- If moose or other wildlife are encountered along the winter road on the Wind River Trail, work will stop until wildlife has passed through the area (YOR 2017-0156-003-1)
- Snow berm height along the Wind River Trail will be minimized and will include periodic gaps (YOR 2017-0156-003-1)
- The operator shall take every precaution to ensure that wildlife habitat is not damaged along the Wind River Trail (YOR 2017-0156-009-1)
- All snow berms or windrows along the Wind River Trail must be broken at intervals no greater than three hundred (300) metres, alternating sides, twenty-five (25) to fifty (50) metres in width, and where possible, be kept to a minimum height. (YOR 2017-0156-009-1)
- An attractant management plan will be developed to minimize bear-human contact (YOR 2017-0156-003-1)
- The Proponent will contact the regional biologist and conservation officer if any bears are frequenting the camp or exploration areas for advice on further mitigation (YOR 2017-0156-003-1)
- If bear dens are encountered during the project activities the Proponent will contact the regional biologist for information on appropriate set back distances (YOR 2017-0156-003-1)
- All clean garbage will be (including kitchen waste) will be stored indoors and burned daily on site in an incinerator (YOR 2017-0156-003-1)
- An electrical fence is proposed to be installed around the camp incinerator (YOR 2017-0156-003-1)
- The Proponent will follow the guidance in Guideline for Industrial Activity in Bear Country for the Mineral Exploration, Placer Mining and Oil & Gas Industries (YOR 2017-0156-003-1)
- Project personnel will receive bear aware training (YOR 2017-0156-003-1)
- Bear deterrents will be in place and waste will be managed to minimize attractants (YOR 2017-0156-003-1)
- All camp windows will have window boarded up and doors locked in the fall of each year (YOR 2017-0156-011-1)

- Most supplies and material will be removed from camp; any remaining items will be securely cached (YOR 2017-0156-011-1)
- All debris and waste will be removed from the site (YOR 2017-0156-011-1)
- Most drill equipment will be removed; any that remains will be stored safely with drip pans in place and fuel lines cleared (YOR 2017-0156-011-1)
- Fuel will be properly stored in a or removed from the site (YOR 2017-0156-011-1)
- If vegetation clearing is proposed between May 1 and July 31 (migratory bird nesting season) qualified and experienced personnel will perform nest surveys (YOR 2017-0156-003-1)
- If active nests are discovered, the Proponent shall postpone activities in the nesting area until nesting period is complete (YOR 2017-0156-003-1)
- If raptors are encountered during the project activities the Proponent will contact the Regional Biologist for information on appropriate set back distances (YOR 2017-0156-003-1)
- If suitable collared pika habitat is identified, the Proponent shall contact Environment Yukon for advice on pre-activity surveys and will report the results of the surveys to the Yukon Conservation Data Centre. (YOR 2017-0156-003-1)
- If collared pika are observed near proposed exploration areas, the Proponent will contact the Regional Biologist for advice on mitigation (YOR 2017-0156-003-1)

#### *Fuel Use, Storage and Handling*

- The Proponent will have a Spill Response Plan in place and several spill kits will be onsite and personnel will be trained in spill response protocols (YOR 2017-0156-003-1)
- Fuel storage locations will be located more than 30 m from any water body fuel storage tanks will include secondary containment systems (YOR 2017-0156-003-1)
- Refueling of vehicles and other equipment will take place at camp or at least 30 m from watercourses (YOR 2017-0156-011-1)
- Waste petroleum products will be stored securely in specially marked 205 L drums, and once full, the drums will be removed and disposed of in coordination with the Environment Yukon's special waste collection program (YOR 2017-0156-011-1)

#### *Exploration Drilling*

- Drill sites will have secondary containment on the fuel storage (YOR 2017-0156-003-1)
- Drill sumps will be placed down gradient to collect drill water and drill cuttings (YOR 2017-0156-003-1)
- When a sump cannot be located down gradient due to permafrost or bedrock, a closed loop/tank system will be used to collect drill water and cuttings (YOR 2017-0156-003-1)
- Drill products used will be bentonite clay or biodegradable drill muds (YOR 2017-0156-011-1) • Drill locations will be reclaimed to previous ground conditions by replacing the removed vegetative mat or re-contouring the talus material (YOR 2017-0156-003-1)
- When possible, activities will avoid water bodies by a minimum of 30 m (YOR 2017-0156-003-1)



- The Proponent will apply best management practices and mitigation techniques for ARD/ML throughout the exploration program including progressive reclamation (YOR 2017-0156-011-1)
- Progressive and final reclamation will be undertaken (YOR 2017-0156-003-1)
- The Proponent will take the appropriate measures to protect the banks and riparian area at each crossing site to mitigate any potential effects (YOR 2017-0156-003-1)
- Drill locations will be reclaimed to previous ground conditions by replacing the removed vegetative mat or re-contouring the talus materials (YOR 2017-0156-003-1)
- Clearing and disturbance of vegetative mat will be avoided to the extent possible (YOR 2017-0156-003-1) • The width and length of trails and roads will be minimized to the extent possible (YOR 2017-0156-003-1)
- As disturbed areas are not required, or at project decommissioning, compacted soils will be scarified and topsoil, organic material and brush will be scattered on disturbed areas to promote revegetation (YOR 2017-0156-003-1)
- Slope stability in steep areas will be checked and recontoured/revegetated as required (YOR 2017-0156-003-1)
- Ditches will be constructed and maintained to promote proper drainage, as required (YOR 2017-0156-003-1)
- Any ditches or berms that may cause water to channel will be re-graded (YOR 2017-0156-003-1)
- On steep slopes, earth berms may be built to divert surface runoff away from the road surface (YOR 2017-0156-003-1)
- The water pumps will be screened when withdrawing water to prevent the potential entrainment of fish from the proposed water sources using the DFO standards “Freshwater Intake End-of-Pipe Screen Guidelines” (YOR 2017-0156-003-1)
- The Proponent will choose water sources that will ensure sufficient flow downstream of the water pumps to maintain fish habitat (YOR 2017-0156-003-1)

*Soil Instability and Erosion - Ice Roads and Bridges (Proponent Commitments specific to winter use of the Wind River Trail)*

- The operator shall not move any equipment or vehicles unless the ground surface is in a state capable of fully supporting the equipment or vehicles without rutting or gouging (YOR 2017-0156-009-1)
- In order to protect terrain values in the project area, the access route shall be constructed with a minimum of ten (10) centimeters of packed snow at all times during the transport phase (YOR 2017-0156-009-1)
- The operator shall suspend overland travel of equipment or vehicles if rutting occurs (YOR 2017-0156-009-1)
- Stream crossings shall have gentle, low-grade approaches and have adequate snow fill to protect the banks from disturbance (YOR 2017-0156-009-1)
- No scarification is to occur that would cause a disturbance to soil (YOR 2017-0156-009-1)
- No material shall be left on the ice when there is potential for that material to enter the water (YOR 2017-0156-009-1)

### *Heritage Resources*

- A Heritage Resources Overview Assessment will be conducted for the Project (YOR 2017-0156-003-1)
- If project personnel encounter heritage/historic resources, they will stop work, flag the area off and avoid it by at least 30 m unless otherwise instructed by the appropriate authorities (YOR 2017-0156-003-1)
- If project personnel encounter heritage/historic resources, Yukon Government Heritage Resources Branch will be contacted, as well as representatives of Na-Cho Nyäk Dun (YOR Document 2017-0156-003-1)