TABLED DOCUMENT 349-18(3) TABLED ON FEBRUARY 21, 2019

Yukon

APPLICATION FOR CLASS 3/4 QUARTZ MINING LAND USE APPROVAL

☑ New permit
☐ Amendment to existing permit Current or previous approval number (if applicable): LQ 00253

Name of applicant Government of the Northwest Territories	Yukon Corporate Registry number (if applicable)	
Address P.O. Box 1320 Yellowknife NT, X1A 2L9	Phone 867 767-9211 x 63222	Fax 867 873 2652
Email Hendrik_Falck@gov.nt.ca , Scott_Cairns@gov.nt.ca	Alternate contact number 867 767-9211 x 63201	
To whom should the approval be issued? Government of the Northwest Territories	Length of approval being applied for (10 year max) 10 years	
Address and contact number (if different than above)		
Name of agent Tania Perzoff Tetra Tech, 885 Dunsmuir Street, Vancouver,V6C 1N5	Phone 1 (778) 945-5717	Fax 1 (604) 684-6241
An *Agent Authorization Form* is required if an agent is applying on behalf of a claimholder/operator.		
Registered owner of claims Government of the Northwest Territories		
A *Claim Holder Authorization Form* is required if the claimholder is not the operator or if there are multiple claimholders.		

DEFINITIONS

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

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;

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;

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;

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;

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

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.

Access to Information and Protection of Privacy Act: I/we acknowledge that the information contained in or attached to this application is being collected under the authority of the *Quartz Mining Act* sections 3 and 5, and the *Access to Information and Protection of Privacy Act* section 29(c) and is to be used for the purpose of reviewing applications. The application may be made available to the public as part of a review process per the *Quartz Mining Land Use Regulation*. For further information, contact the Department of Energy, Mines and Resources, Mining Lands Office at 867-667-3190 or toll free at 1-800-661-0408 ext. 3190.

PART A: LOCATION OF OPERATION

Requirement: Attach map(s) of the area to your application (NTS 1:50,000) indicating: 1) the location and extent of the program, including all locations or areas where proposed activities will take place; 2) existing and proposed access routes; 3) existing environmental disturbance; and, 4) lands in the area that are known to be subject to the rights or interests of other parties.

NTS map number(s) (1:50,000 scale): 85 0/8, 85 0/1, 85 O/2

Property name: Mactung

List the claims below or attach a claim status report:

See attached

PART B: DESCRIPTION OF OPERATION WORKPLAN

Outline a step by step chronological plan indicating all proposed activities and approximate dates of all work to be completed, including final site decommissioning activities. Be as specific as possible.

Duration of operation and length of seasons

Annual start date: day: 1 month: June Annual end date: day: 30 month: Sept.

	Activity	Month/Year
1.	To be determined (see background material)	
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		
21.		
22.		
23.		
24.		
25.		

Attach additional pages as required.

PART C: DESCRIPTION OF AREA

Photographs supplied? ☑ Yes ☐ No If yes, how many? _____

All photos must be dated. Number photos and attach description of features and areas where activities are proposed. Map or sketches should indicate direction of photo and area of view in photo.

Wildlife, vegetation and physiography

Wildlife – describe and list species typical of the project area, include wildlife key areas or other site-specific habitat features if known:

See attached background document

Vegetation – describe the type of vegetation of the project area:

See attached background document

Physiography – describe the physiography of the project area (topography, elevation, presence of permafrost, etc.):

See attached background document

Geology of the area

Describe the regional geology of the area, including any mineralization type:

See attached background document

Given this geology, what minerals will you be encountering?

Tungsten is hosted mainly in scheelite associated with pyrrhotite, copper in chalcopyrite, and gold mainly in native bismuth.

Specifically will uranium be encountered? ☐ Yes ☑ No

Note: *There will be additional legislation affecting your program when exploring for uranium.*

Attach additional pages as required.

Existing development in the area

If present, describe the current extent of disturbance on claim (indicate origin):

See attached background document

Describe other known activities in the area such as other exploration, placer mining, industrial or recreational uses of the area:

See attached background document

Describe all known waste materials in the area (hazardous waste, equipment and debris from previous mining or other activities):

See attached background document

Does your project overlap with First Nation Settlement Land? ☐ Yes ◉ No

If yes, provide parcel number(s) _____

Check all known developments listed below (on claims and within 1 km of proposed project site):

Evidence of mineral exploration work	☑ Active	☐ Non-active/abandoned	☐ Placer	☑ Hard rock
Mine developments and production	☑ Active	☐ Non-active/abandoned	☐ Placer	☑ Hard rock
Existing roads	☐ Primary (paved)	☑ Secondary (gravel/mud)		
Existing trails	☑ Off-road vehicle access	☑ Heavy equipment access		
Stream crossings	☐ Bridge(s)	☐ Culvert(s)	☑ Ford(s)	
Water access	☐ Motorized boat access	☐ Float plane access		
Air access	☐ Airstrip (paved)	☐ Airstrip (unpaved)	☑ Helicopter pad	
Forest harvesting	☐ Active	☐ Non-active/abandoned		
Agricultural activity	☐ Specify:			
Oil and gas exploration/extraction	☐ Active	☐ Non-active/abandoned		
Gravel extraction/quarrying	☐ Active	☐ Non-active/abandoned		
Power/communications	☐ Hydroelectric devlpmt	☐ Transmission lines	☐ Communications towers	

Attach additional pages as required.

Resource harvesting	☑ Trapping	☐ Fishing/hunting lodge	☐ Fishing/hunting camp
Archaeological sites	☐ Burial grounds	☐ Other – specify:	
Recreational use	☐ Campground	☐ Commercial rafting/boating	
Other recreation use	☐ Specify:		
Land occupation (community/ settlement structures)	☐ Specify:		
Permanent structures	☑ Specify: Core storage building has cement floor		

Distance of proposed mining activities from existing dwelling place(s): _____ m

PART D: DESCRIPTION OF PROJECT ACTIVITIES

Use of vehicles/equipment

List all equipment to be used on claims including type, size (gross vehicle weight), purpose, and number of each. Explain how each will be brought in to site (i.e. trail, new road, existing road, air, water, etc).

Limited use of vehicles/equipment proposed - see supporting documentation for details.

Existing access routes

Requirement: Mark all existing roads and trails on a map. Indicate roads and trails separately.

Note: *Access across land that is outside of the claim block may require a Land Use Permit from the Government of Yukon's Department of Energy, Mines and Resources, Land Management Branch and/or consent from the appropriate First Nation where crossing settlement land. Any stream crossings must be done in accordance with the* Fisheries Act *and the* Waters Act.

Will existing roads and trails be used? ☑ Yes ☐ No

☑ On-claim Length of existing route: Roads 49 km Trails _____ km

☐ Off-claim Length of existing route: Roads _____ km Trails _____ km

Will existing roads be upgraded? ☐ Yes ☑ No

☐ On-claim Length _____ km Width _____ m

☐ Off-claim Length _____ km Width _____ m

Describe upgrading work that will be completed and provide approximate dates:

Road Maintenance to stop erosion and sediment release will be preformed.

Attach additional pages as required.

New access routes

Requirement: Mark all proposed access roads and trails on a map. Indicate roads and trails separately.

Note: *An Access Management Plan may be required.*

Will new access roads be developed? ☐ Yes ☉ No

☐ On-claim Length _____ km Width _____ m

☐ Off-claim Length _____ km Width _____ m

Will new trails be developed? ☐ Yes ☐ No

☑ On-claim Length 5 km Width 3 m

☐ Off-claim Length _____ km Width _____ m

Will temporary trails be used and/or developed? ☐ Yes ☐ No

☑ On-claim Length 40 km Width 3 m

Describe work that will be completed to develop any of the above access roads or trails:

If drill program requires new access points to undertake exploration to confirm ore resources then access trails not longer than 300 m each might need to be constructed. Locations to be determined.

Will vehicles be used off road or off trail? ☐ Yes ☉ No If yes, when? ☐ Winter ☐ Summer

☐ On-claim ☐ Off-claim Length of route: _____ km

Other new access

Requirement: Mark all other access developments on a map.

☐ Winter road (10 cm packed snow fill) _____ km

☐ Ice bridge river crossing

☐ New helicopter pad: area: _____ m^2 Total number of helicopter pads: _____

Develop new airstrip? ☐ Yes ☉ No

☐ On-claim ☐ Off-claim Length _____ km Width _____ m

Describe work that will be done to develop any of the above:

Nothing planned - see supporting documentation for details.

Water access? River/lake name: _____

Describe any modifications to bed or banks of water bodies for air or watercraft landing/loading:

Nothing planned - see supporting documentation for details.

Proximity to water bodies or watercourses

Will any access routes be within 30 metres of water bodies or watercourses? ☐ Yes ☉ No

If yes, which ones (i.e. type of access) and where? Indicate on a map.

Attach additional pages as required.

Line cutting/corridors

Will cut lines be made? ☐ Yes ◉ No

If yes, indicate: ☐ Hand-held tools ☐ Mechanized Total length _____ m Width _____ m

Will corridors be made? ☐ Yes ◉ No

If yes, indicate: ☐ Hand-held tools ☐ Mechanized Total length _____ m Width _____ m

Purpose of corridor? ☐ Water line ☐ Fuel line ☐ Power line

How will erosion be prevented and revegetation occur on cut lines and corridors?

Soil stabilization and re-vegetation activities (as required) are provided in the supporting documentation.

Exploration and site preparation

Requirement: Indicate exploration targets and activities on a map and/or sketch.

Clearings

Number of new clearings per claim: 0 Total number of new clearings: 0

Surface area of each clearing where vegetative mat will be removed: 0 m²

Surface area of each clearing where trees and brush only will be removed: 0 m²

Total area of clearings: vegetative mat removed: 0 m² Vegetative mat intact: N/A m²

Will clearings be conducted within 30 meters of water bodies or watercourses? ☐ Yes ◉ No

Describe clearings (purpose, number, size, vegetative mat removal, etc.):

No new clearings are proposed - see supporting documentation.

Timber use

Will timber be cut? ☐ Yes ◉ No

If yes, what will happen to cut logs:

☐ Stockpiled ☐ Burned ☐ Used for mining activities/structures ☐ Limbed/bucked and dispersed

☐ Spread over access routes ☐ Other (specify) _____

Are you stockpiling or preparing for a burn by mechanical means? ☐ Yes ◉ No

Will you be burning between April 1 and September 30? ☐ Yes ◉ No

Exploration drilling

Requirement: Indicate locations on a map and/or sketch.

Drill type:	☐ Reverse circulation	☐ Rotary	☑ Diamond	☐ Other (specify) _____
Number of holes:			tbd	
Total length (m):			50,000	

Attach additional pages as required.

What drill products will be used (e.g. petroleum/synthetic-based), include quantity: TBD

If applicable, describe water use, withdrawal and management, sump locations and design:

Water use, withdrawal and management, and sump locations will be determined should diamond drilling occur at site.

How will wildlife be prevented from accessing sumps:

Should sumps be developed, a wildlife protection plan will be developed and implemented.

Will drilling be conducted within 30 metres of water bodies or watercourses? ☐ Yes ☑ No

If yes, indicate location(s) on a sketch and/or map.

Exploration trenching

Requirement: Indicate locations on map and/or sketch.

Number of trenches to be cut: no trenching planned

Average size: Length _____ m x Width _____ m x Depth _____ m = _____ m^3

Total volume of trenching (number of trenches x average size) : _____ m^3

How will trenches be cut: ☐ By hand/hand-held tools ☐ Mechanized equipment

Will trenches be sloped at one end to allow wildlife to escape? ☐ Yes ☐ No

Will trenching be conducted within 30 meters of water bodies or watercourses? ☐ Yes ☐ No

Explosives

Will explosives be used or stored on site? ☐ Yes ☑ No If yes, indicate: Type _____

Total amount _____ (kg) Maximum amount to be used in 30 days _____ (kg)

Will explosives be used within 30 metres of water bodies or watercourses? ☐ Yes ☑ No

Note: *Consult Government of Yukon, Mine Safety to obtain a blasting certificate and a storage permit*

Mitigation of exploration and site preparation

What measures will be taken to ensure stabilization, erosion control & revegetation of all areas disturbed by any activities?

Please see supporting document.

Attach additional pages as required.

Bulk sampling

Bulk samples can be drill core, contents of a trench, test pit or underground working. Describe handling and on site processing methods including any use of reagents:

No bulk sampling will be conducted.

Where and how will bulk sample be stored on site?

N/A

When and how will samples be removed from site?

N/A

Will a portion of the bulk sample be left on site? ☐ Yes ☒ No If yes, how long? _____

Complete the following:

Activity	Tonnes	Disturbed area (ha) 1ha = 10 000 m²	Year 1 _____	Year 2 _____	Year 3 _____	Year 4 _____	Year 5 _____
Bulk sample							
Overburden waste dumps							
Totals							

Preventing metal leaching and acid rock drainage

Describe the potential of all disturbed units for acid rock drainage and metal leaching. If a potential exists how will it be prevented, minimized, mitigated and monitored?

Please see supporting documentation

Underground structures (additional information will be required)

Will underground structures be constructed? ☐ Yes ☒ No

If yes, how much material will be moved to the surface?

Each year:_____ Over total life of operation:_____

Mark the location(s) of all excavation sites and overburden/waste dumps on map. Indicate distance from streams, wetlands and lakes.

Attach additional pages as required.

PART E: CAMP FACILITIES AND MAINTENANCE

Requirement: Indicate location of camp(s) on a map.

Structures/facilities

Will you require a camp? ☉ Yes ☐ No

Will the site require clearing? ☐ Yes ☉ No Total area: _____ m^2

Will camps or facilities be located within 30 metres of water bodies or water courses or structures? ☐ Yes ☉ No

New facilities: ☐ Frame/log structure ☐ Trailer(s) ☐ Tent/tent frame ☐ Other (specify): _____

Describe camp, location and site preparation:

Re -occupy existing camp, rebuild tent frames on floors, utilize existing trailers for kitchen and storage. Use the core shed for core logging and handling.

Existing facilities: ☐ Frame/log structure ☑ Trailer(s) ☑ Tent/tent frame ☑ Other (specify): _____

Describe existing facilities including location: See attached background document

Camp size

Number of camps: 1

Max number of persons in camp at a time: 25

Number of person-days/camp (persons x days): 2,250

Seasonal camp closure

Describe work that will be done at the end of each year to secure camp facilities:

Please see attached background document

PART F: WASTE AND ATTRACTANT MANAGEMENT

Storage and disposal

How will camp and kitchen waste and greywater be managed and disposed of?

Please see attached background document

How will human waste be managed and disposed of?

☐ Privy/outhouse ☐ Portable toilet(s) ☑ Septic tank ☐ Sewage holding tank

☐ Other (describe) _____

Will you be burning waste? ☐ Yes ☉ No

If yes, describe method: _____

Will waste material be deposited and/or disposed of within 30 metres of water bodies or watercourses? ☐ Yes ☉ No

Note: *complete your Environmental Health Services Work Camp Assessment Form*

Attach additional pages as required.

Wildlife deterrence

Note: *A Wildlife Attractant Management Plan may be required.*

Describe, in detail, waste/attractant management measures that will be used to reduce wildlife conflicts (e.g. electric fencing, bear-proof containers, etc.):

Please see attached background document.

Describe, in detail, personal protective devices that will be made available on site (e.g. bear spray, bangers, firearms, etc.):

Please see attached background document.

Describe, in detail, administrative controls that will be used to reduce wildlife conflicts (e.g. attractant management plan, training/education, etc.):

Please see attached background document.

Waste petroleum products

Describe procedures and location for storage, removal and disposal of waste petroleum products (e.g. oil, lubricants, contaminated fuel and other special industrial wastes):

Please see attached background document.

Note: *All fuel spills must be immediately contained, cleaned up and reported to an inspector. Hazardous material must be labeled and stored in accordance with Workplace Hazardous Materials Information System (WHMIS). Consult YTG Occupational Health and Safety Branch and Special Waste Regulations for more information.*

Solid waste disposal facility (landfill)

Will your program include a solid waste disposal facility (landfill)? ☐ Yes ☒ No

If yes, what is the anticipated volume of solid waste to be collected at this site (tonnes or m^3 per week, month or year)?

Describe, to the extent known, the types of wastes that will be handled or disposed of at this site:

General household waste, which will be transported off-site to the nearest permitted disposal facility.

Attach additional pages as required.

PART G: FUEL STORAGE AND HANDLING

***Note:** All tanks with capacity of 4000 L or greater must be registered with the district Mining Lands office.*

Fuel storage

Type of fuel	Fuel storage tank			Quantity (L)	Tank registration number	Nearest water body/course	
	Type	Capactiy	Age			Name	Distance (m)
propane	skid mounted	1000 Us Gal			60-3144	Hess Tributary	1000 m

Requirement: Mark location(s) of fuel storage site(s) on map

Will there be a secondary containment facility for any of the storage tanks? ☐ Yes ☐ No

If yes, which tanks (size) and how will the facility be constructed (berms, linings/materials, size of facility, proximity to water)?

Please see attached background document.

Where and how will refueling take place?

Please see attached background document.

Transport of fuel

Describe method(s) of transport of fuel and other petroleum products and containers to be used for transport:

Please see attached background document.

Provide a comprehensive fuel spill plan with your application, which must be posted on site before any work can begin.

Attach additional pages as required.

PART H: RECLAMATION AND FINAL SITE DECOMMISSIONING

Progressive reclamation measures

Describe, in detail, progressive and final reclamation measures that will be taken over the course of the project:

Please see attached background document.

How will the site be prepared for revegetation?

Please see attached background document.

What work will be done to ensure slope stability and erosion control?

Please see attached background document.

Are there areas where a 1:2 slope cannot be achieved? ☐ Yes ☒ No

If yes, describe these areas and explain alternative measures to achieve stability:

N/A

Reclamation of new access routes and trails

How will access routes be reclaimed? Explain work to be done including deactivation and final decommissioning. Provide a schedule.

Please see attached background document.

Attach additional pages as required.

Removal of camp structures

Provide details as to how and when camp site structures will be dismantled and removed:

Please see attached background document.

Fuel and waste management

What will be done with remaining fuel, tanks, storage area, berm(s), other industrial supplies? Outline methods of storing/ handling/processing/recycling and disposal of any waste fuel over 5 litres:

Please see attached background document.

What will be done with other waste materials (e.g. metal, machinery, sewage disposal, household items, etc.)?

Please see attached background document.

PART I: FIRST NATIONS AND STAKEHOLDER ENGAGEMENT

Have you discussed the proposed operation with any First Nations, individuals or organizations that may be affected by the project? If so, indicate who and what input you have received (i.e. any concerns you are aware of, support for the project, interest in participation, other input):

No consultation has been conducted to date. Consultation will likely be initiated in early 2019.

I verify that all of the information contained in this application is true.

Tania Perzoff
Name of applicant/operator

SIGNATURE REDACTED

2018/12/20
Date

If applicable, additional pages attached to this application: _____ pages.