



## **NIRB Uuktuutinga Ihivriuhikhamut #125502**

### **Ulu Gold Project**

**Uuktuutinga Qanurittuq:** New

**Havaap Qanurittunia:** Mineral Exploration

**Uuktuutinga Ublua:** 1/16/2020 6:16:20 PM

**Period of operation:** from 0001-01-01 to 0001-01-01

**Piumayaat Angirutinga:** from 0001-01-01 to 0001-01-01

**Havauhikhaq Ikayuqtinga:** Peter Kuhn  
Blue Star Gold Corp.  
1125-595 Howe St.  
Vancouver BC V6C 2T5  
Canada  
Hivayautit Nampanga:: 778-379-1433, Kayumiktukkut Nampanga::





anirhaaktaptiknut urhuqyuamit. Havaknikkutlhuaqhaqni, qiniqhiayaagani kuulmik ilituqhaqlugilu hanianiitut nunat, ukua atulaaqtut havaariyauniganik havaaq: •Piliurluni iqqakunik iliurainiq nunap iluanut halumayunut iqqakunik, qaanga iliuraqlugu uyaqqanik uyaraliarmikluuniit;•Paqiluni ihuaqtumik uyaqqanik uyaraliaqmiklu qaanga iliurariami iqqakurvinga;•Piliurlugu nayugakhanganik talvani iliurariami halumailrunga nuna talvannga halummaqlugu uyarakhiurvikmi;•Hanalutik atulaklugulu tupiqpaqaqvikhaq upingaami, auyami, ukiakhamilu; •Algaklugu ikuutaqlugulu qaanga nunap ataanilu paqigiami gold-mik; •Tingmitikkuurlutit uyarakhiurvingmungaugiani, halikaaptakkullu, akhaluutikkullu, sikiituukkullu, akhaluut agyaqtuukkullu, qayakkullu haantakkullu ingilragiami uyarakhiurvikmi piinariaaqigiamilu havakvinganik; •Aturlugu ukiumi apqutinganik nuutiqtiriami urhuqyuakhaq hunavaluillu uyarakhiurvikmut;•Tutqurlugit urhuqyuq uyarakhiurvikmi, halummaqvingani, haniani ikuutani;•Aturlugu akhaluutiryuat nuutiriami uyaqqanik hunavalukniklu uyarakhiurvikmi;•Tingmitikkuqtiqlugit inuit tamayallu hanianit nunallaanit uyarakhiurvikmut, millutik milvinganut haniani Ulu tingmitikkut uyarakhiurvikmiluuniit halikaaptakkut; •Iluarhilugu milvinga takkaryuangurlugu taimaa angiyut tingmitit migiamikni nakuuyumik;•Atuqlutik hiniktaqviknik manikhaqhiurutiniklu haniani nunagiyauyuni aulaliraagamik igluuqpaqaqvikmut; •Atuqlutik nunami manikhaqhiurutauyut inuilu havagiami havaami; •Iltuqhaqlugit igilraaqnitat, nuna, immaq, hilauyuq, umayulu talvani nunauyui. Taimaittuq pilihaaliqtillugu havauhikhaq, ihumagiyauyuq havauhikhaq aullaqtirniaqtuq mikkaqmik angikliyuumiqlunilu hivuniqmi taimaa qinirhiatilluta gold-mik. 2020mi, aturniaruknaqhiyaqqut utuqqaq uyarakhiurvigaluanga aullaqtiriaptikni, talvannga piliurlugu nutaamik uyarakhiurvikmik. Piqaqtugut 30nik inungnik uyarakhiurvikmi aturiamikni akhaluutiryuanik, ikayuriamikni halummaqtiqtunik uyarakhiurlutiklu. Talvannga uyarakhiurvik halummaqtauqpat, paqitkupta gold-mik, piqaqtaaqtuqut amihunik inungnik amihuniklu ikuutaqmik angitqamik uyarakhiurvikmik hivunikhaptikni, havakhimmaaqlutalu ukiumi.Ulu uyarakhiurvinga milvingalu atuqtaunginnarialik ikayuriami aadlanik havaanik talvani ukunatitut havaakhaq Agiami apqutinganik unalu Tulukvinganik Havauhikhaq uumanilu Hood River Gold-mik Havauhikhaq. InungitUblumimut, Blue Star uqaqatigiyait: Kugluktuk Angoniatit Katimayiingit, Burnside-mi unalu Omingmaktok An'nguhiqitkut Timiqutigiyangit; inungit nunaqaqtut Kugluktumi Iqaluktuutiamilu; Nunavut Tunngavitkut; Kitikmeot Inuit Katimayiingit Nunavunmi Parnainirmut Katimayiingit ; Nunavut Avatilirinirmut Katimayiiit; Nunavummi Imalirijikkut Katimayiingit; Haamlanga Kugluktup; Nunavut Kavamanga; Kaanatap Kavamanga; aadlallu inuit havaktut kitikmeonmi; nunamikni nanminiaqqtut. Inungnut katimapkaiyut 2019mi katimaffaarniaqtullu upin'ngakhami. Hood River-mi 2019mi, Blue Star havaktiliqtut qaffinik havaktukhat Kugluktumit aturhutik qaffinik talvannga unalu Inuit nanminiaqqtunit. Blue Star ihumaliuqtut havaktiffaaliriami hapkuat havaktut unalu nanminiaqqtut ikayuriamikni Ulu-mik. Avatiliqiyikkut Hunaliqaa hulijut maniqamik ihuruqhilaqtuq ihuilijutauluniluniit. Una atugitaagani, Blue Star-kut upalugaiyaqtut havagiami hivuani, havaqatigilugit inuit qauyimayut nunamik, havakpaktumiklu ihuaqtumik ukua havaavut maniraqlu aaniqviugitaagani halumayaaganilu havaktiluta. Havaguirupta, iginiaqtaqqut iqqakut qayagittiaqluta ihuaqtumiklu, hanalrutivut akhaluutivullu tamayavullu nakhaqniaqtavut inirupta.

## Personnel

Personnel on site: 60

Days on site: 1350

Total Person days: 81000

Operations Phase: from 2020-05-08 to 2025-05-07

Operations Phase: from 2020-05-08 to 2025-05-07

Closure Phase: from 2020-05-08 to 2025-05-07

Post-Closure Phase: from to

## Hulilukaarutit

Inigiya	Hulilukaarut Qanurittuq	Nunangga Qanurittaakhaanik	Initurlinga qanuritpa	Initurlinga utuqqarnitat unaluuniit Ingilraaqnitat Uyarannuqtut akhuurninnga	Qanitqiyauyuq qanitqiamut nunallaat kitulluuniit ahiruqtaliyainnit nuna
Ulu Mineral Claim	Baseline data	Inuit Owned Surface Lands	Some baseline environmental studies have been undertaken in the past, as part of the original EA in the 1990s, and more recently in 2004-2006	A number of surveys have been undertaken in the past. It is believed that heritage resources in the area are well understood.	200 km SE of Kugluktuk
Ulu Mineral Claim	Fuel and chemical storage	Inuit Owned Surface Lands	Developed in the 1990's as a mine, intended to be a satellite deposit for Lupin. Related surface infrastructure was built, and underground developed, ore and waste rock brought to surface, bulk fuel storage built. Site has largely been in care and maintenance for approx. 15 years, and is undergoing progressive reclamation, with most surface facilities, including fuel storage, being reclaimed. To support reclamation, exploration and future bulk sampling, new fuel storage facilities may be built	A number of surveys have been undertaken in the past. It is believed that heritage resources in the area are well understood.	200 km SE of Kugluktuk
Ulu Mineral Claim	Mine Development/Bulk Sampling	Inuit Owned Surface Lands	Developed in the 1990's as a mine, intended to be a satellite deposit for Lupin. Related surface	N/A. Activities will occur within the existing developed area.	200 km SE of Kugluktuk

			<p>infrastructure was built, and underground developed, ore and waste rock brought to surface, bulk fuel storage built. Site has largely been in care and maintenance for approx. 15 years, and is undergoing progressive reclamation, with most surface facilities, including fuel storage, being reclaimed. Following reclamation, and successful exploration, Blue Star wishes to collect a future bulk sample.</p>		
Ulu Mineral Claim	Quarry/Borrow pit	Inuit Owned Surface Lands	<p>There are a number of existing borrow sources on site that have been used historically. Blue Star wishes to use these, along with suitable materials from new quarries or borrow sources, for construction, reclamation and site maintenance activities.</p>	<p>A number of surveys have been undertaken in the past. It is believed that heritage resources in the area are well understood.</p>	200 km SE of Kugluktuk
Ulu Mineral Claim	Waste disposal	Inuit Owned Surface Lands	<p>Related to the current ongoing reclamation, Blue Star wishes to establish a non-hazardous waste landfill and a land farm. Other waste management activities on site are consistent with camp</p>	<p>N/A. Activities will occur within the existing developed area.</p>	200 km SE of Kugluktuk

			operation and exploration activities.		
Study area	Baseline data	Crown	The study area is delineated along the boundary of the Hood River watershed. Some baseline environmental studies have been undertaken in the past, as part of the original EA in the 1990s, and more recently in 2004-2006. Further studies may be undertaken in the future to support an environmental assessment .	A number of surveys have been undertaken in the past. It is believed that heritage resources in the area are well understood.	200 km SE of Kugluktuk
Study area	Baseline data	Inuit Owned Surface Lands	The study area is delineated along the boundary of the Hood River watershed. Some baseline environmental studies have been undertaken in the past, as part of the original EA in the 1990s, and more recently in 2004-2006. Further studies may be undertaken in the future to support an environmental assessment .	A number of surveys have been undertaken in the past. It is believed that heritage resources in the area are well understood. Supplemental studies will be undertaken as needed.	200 km SE of Kugluktuk
Study area	Camp	Inuit Owned Surface Lands	The Ulu is currently located on the Ulu claim. Historically, other exploration camps have occurred in the vicinity, but have been closed and sites reclaimed. In the future, Blue Star may wish to establish a new	A number of surveys have been undertaken in the past. It is believed that heritage resources in the area are well understood. Supplemental studies will be undertaken as needed.	200 km SE of Kugluktuk

			exploration camp site, possibly in an area more proximal to the airstrip to support better access.		
Study area	Fuel and chemical storage	Inuit Owned Surface Lands	Regional exploration has been undertaken in the past. Any related fuel caches have been demobilized. Blue Star may wish to establish remote fuel caches to support efficient use of helicopters and emergency response.	A number of surveys have been undertaken in the past. It is believed that heritage resources in the area are well understood. Supplemental studies will be undertaken as needed.	200 km SE of Kugluktuk
Study area	Mineral Exploration	Inuit Owned Surface Lands	Mapping, prospecting and sampling has occurred in the area in the past. Blue Star wishes to continue these activities as part of the exploration program	A number of surveys have been undertaken in the past. It is believed that heritage resources in the area are well understood. Supplemental studies will be undertaken as needed.	200 km SE of Kugluktuk
Study area	Quarry/Borrow pit	Inuit Owned Surface Lands	There are a number of existing borrow sources proximal to the Ulu site that have been used historically. Blue Star plans to undertake an assessment of the area to determine the location of new quarries or borrow sources, for construction, reclamation and site maintenance activities.	A number of surveys have been undertaken in the past. It is believed that heritage resources in the area are well understood. Supplemental studies will be undertaken as needed.	200 km SE of Kugluktuk
Winter trail	Other	Crown	A winter trail was built between Ulu and Contwoyto Lake in the past,	A number of surveys have been undertaken in the past. It is believed that heritage	200 km SE of Kugluktuk

			to support site development. Blue Star may wish to use a winter trail again in the future, along the same route to support resupply.	resources in the area are well understood.	
Winter trail	Other	Inuit Owned Surface Lands	A winter trail was built between Ulu and Contwoyto Lake in the past, to support site development. Blue Star may wish to use a winter trail again in the future, along the same route to support resupply.	A number of surveys have been undertaken in the past. It is believed that heritage resources in the area are well understood.	200 km SE of Kugluktuk
Airstrip	Airstrip use or construction	Inuit Owned Surface Lands	There is an existing airstrip, connected to Ulu by all season road. Use of this airstrip will continue, along with maintenance and possible expansion.	A number of surveys have been undertaken in the past. It is believed that heritage resources in the area are well understood. Supplemental studies will be undertaken as needed.	200 km SE of Kugluktuk
Ulu site	Camp	Inuit Owned Surface Lands	As part of the original mine development, a camp currently exists in the development area. this camp is in disrepair, and may be dismantled or repaired and relocated.	N/A. Activities will occur within the existing developed area.	200 km SE of Kugluktuk
Ulu site	Site Cleanup/Remediation	Inuit Owned Surface Lands	Developed in the 1990's as a mine, intended to be a satellite deposit for Lupin. Related surface infrastructure was built, and underground developed, ore and waste rock brought to surface, bulk	N/A. Activities will occur within the existing developed area.	200 km SE of Kugluktuk

			fuel storage built. Site has largely been in care and maintenance for approx. 15 years, and is undergoing progressive reclamation, with most surface facilities, including fuel storage, being reclaimed. Blue Star wishes to continue reclamation.		
Ulu site	Landfarm	Inuit Owned Surface Lands	Past site activities have resulted hydrocarbon contamination. Blue Star plans to construct and operate an landfarm to treat contaminated soils	N/A. Activities will occur within the existing developed area.	200 km SE of Kugluktuk
Ulu site	Landfill	Inuit Owned Surface Lands	As progressive reclamation is underway, non-hazardous waste from historic activities has accumulated on site. Blue Star plans to construct a non-hazardous waste landfill on site.	N/A. Activities will occur within the existing developed area.	200 km SE of Kugluktuk
Ulu site	Fuel and chemical storage	Inuit Owned Surface Lands	Developed in the 1990's as a mine, intended to be a satellite deposit for Lupin. Related surface infrastructure was built, and underground developed, ore and waste rock brought to surface, bulk fuel storage built. Site has largely been in care and maintenance for approx. 15 years, and is	N/A. Activities will occur within the existing developed area.	200 km SE of Kugluktuk

			undergoing progressive reclamation, with most surface facilities, including fuel storage, being reclaimed. To support reclamation, exploration and future bulk sampling, new fuel storage facilities may be built.		
Ulu site	Waste disposal	Inuit Owned Surface Lands	Related to the current ongoing reclamation, Blue Star wishes to establish a non-hazardous waste landfill and a land farm. Other waste management activities on site are consistent with camp operation and exploration activities.	N/A. Activities will occur within the existing developed area.	200 km SE of Kugluktuk
Ulu Mineral Claim	Waste disposal	Inuit Owned Surface Lands	Waste disposal activities are consistent with camp operation and exploration activities such as greywater deposit to sumps and cuttings disposal to sumps.	A number of surveys have been undertaken in the past. It is believed that heritage resources in the area are well understood. Supplemental studies will be undertaken as needed.	200 km SE of Kugluktuk
Study area	Waste disposal	Inuit Owned Surface Lands	Waste disposal activities are consistent with camp operation and exploration activities such as greywater deposit to sumps and cuttings disposal to sumps.	A number of surveys have been undertaken in the past. It is believed that heritage resources in the area are well understood. Supplemental studies will be undertaken as needed.	200 km SE of Kugluktuk
Ulu Mineral Claim	Advanced Mineral Exploration	Inuit Owned Surface Lands	Developed in the 1990's as a mine, intended to be a satellite deposit for	A number of surveys have been undertaken in the past. It is believed that heritage	200 km SE of Kugluktuk

			<p>Lupin. Related surface infrastructure was built, and underground developed, ore and waste rock brought to surface, bulk fuel storage built. Site has largely been in care and maintenance for approx. 15 years, and is undergoing progressive reclamation, with most surface facilities, including fuel storage, being reclaimed. Along with reclamation, Blue Star wishes to recommence exploration.</p>	resources in the area are well understood.	
Ulu Mineral Claim	Drilling	Inuit Owned Surface Lands	<p>Developed in the 1990's as a mine, intended to be a satellite deposit for Lupin. Related surface infrastructure was built, and underground developed, ore and waste rock brought to surface, bulk fuel storage built. Site has largely been in care and maintenance for approx. 15 years, and is undergoing progressive reclamation, with most surface facilities, including fuel storage, being reclaimed. Along with reclamation, Blue Star</p>	<p>A number of surveys have been undertaken in the past. It is believed that heritage resources in the area are well understood. Additional studies will be undertaken as required.</p>	200 km SE of Kugluktuk

			wishes to recommence exploration.		
Ulu Mineral Claim	Mineral Exploration	Inuit Owned Surface Lands	Developed in the 1990's as a mine, intended to be a satellite deposit for Lupin. Related surface infrastructure was built, and underground developed, ore and waste rock brought to surface, bulk fuel storage built. Site has largely been in care and maintenance for approx. 15 years, and is undergoing progressive reclamation, with most surface facilities, including fuel storage, being reclaimed. Along with reclamation, Blue Star wishes to recommence exploration.	A number of surveys have been undertaken in the past. It is believed that heritage resources in the area are well understood. Supplemental studies will be undertaken as needed.	200 km SE of Kugluktuk
Ulu site	Advanced Mineral Exploration	Inuit Owned Surface Lands	Developed in the 1990's as a mine, intended to be a satellite deposit for Lupin. Related surface infrastructure was built, and underground developed, ore and waste rock brought to surface, bulk fuel storage built. Site has largely been in care and maintenance for approx. 15 years, and is undergoing progressive reclamation, with most	N/A. Activities will occur within the existing developed area.	200 km SE of Kugluktuk

			surface facilities, including fuel storage, being reclaimed. Along with reclamation, Blue Star wishes to recommence exploration.		
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### Nunaliin Ilauyun, Aviktuqhimayuniitunullu Ikayuuhiarunguyun

Nunauyuq	Atia	Timiuyuq	Upluani Uqaqatigiyaungmata
Kugluktuk	Geoff Clark	KIA-Lands	2019-01-08
Kugluktuk	Geoff Clark	KIA-Lands	2019-01-24
Kugluktuk	Geoff Clark, Tannis Bolt	KIA-Lands	2019-03-19
Kugluktuk	Geoff Clark	KIA-Lands	2019-04-02
Ikaluktuttiak	Stanley Anablak, Paul Emingak, Fred Pedersen, Michelle Gillis, John Roesch, Geoff Clark	KIA	2019-03-02
Kugluktuk	Amanada Dumond	Kugluktuk Angoniatit Association	2019-01-10
Kugluktuk	Amanda Dumond	Kugluktuk Angoniatit Association	2019-01-23
Kugluktuk	Amanda Dumond	Kugluktuk Angoniatit Association	2019-03-20
Ikaluktuttiak	Sam Angohiatok	Burnside & Omingmaktok Hunters' & Trappers' Organizations	2019-02-04
Ikaluktuttiak	Sam Angohiatok	Burnside & Omingmaktok Hunters' & Trappers' Organizations	2019-02-11
Ikaluktuttiak	Sam Angohiatok	Burnside & Omingmaktok Hunters' & Trappers' Organizations	2019-03-21
Kugluktuk	Matt Stadnyk	Hamlet of Kugluktuk	2019-01-24
Kugluktuk	Don Leblanc	Hamlet of Kugluktuk	2019-03-19
Kugluktuk	Public	Public	2019-03-20
Kugluktuk	Baba Pedersen	CIRNAC	2019-01-25
Kugluktuk	Lisa-Marie LeClerc, Kevin Methuen	GN-DOE	2019-01-24
Kugluktuk	Lisa-Marie LeClerc, Kevin Methuen	GN-DOE	2019-03-13
Iqaluit	Erika Zell, Paul Budkewich, David Kunuk	GN-Minerals, DOE	2019-01-30
Iqaluit	Erika Zell, Paul Bedkewich, Natalie O'Grady	GN-DOE, Minerals	2019-04-05
Iqaluit	Tineka Simmons, Adrian Paradis	CanNor	2019-01-15
Iqaluit	Tineka Simmons, Adrian Paradis	CanNor	2019-01-31

Iqaluit	Tineka Simmons, Adrian Paradis	CanNor	2019-03-04
Iqaluit	Godwin Okonkwo, Felexce Ngwa	CIRNAC-Waters, EA	2019-02-19
Iqaluit	Godwin Okonkwo, Felexce Ngwa	CIRNAC-Waters, EA	2019-04-05
Ikaluktuttiak	Public	Public meeting	2019-03-21
Ikaluktuttiak	Public	Public Meeting	2019-03-22
Ikaluktuttiak	Ryan Barry, Teresa Meadows	NIRB	2019-01-30
Ikaluktuttiak	Natasha Lear, Jaida Ohokannoak	NIRB	2019-03-22
Ikaluktuttiak	Tara Arko	NIRB	2019-02-12
Urhuqtuuq	Dave Baines, Derek Donald, Teresa Meadows	NWB	2019-01-29
Iqaluit	Felixce Ngwa	CIRNAC-EA	2019-04-05
Iqaluit	Erika Zell, Natalie O'Grady, Paul Budkewich	GN	2019-04-06
Urhuqtuuq	Karen Kharatyan, Teresa Meadows, Assol Kusibinova, Derek Donald	NWB	2019-04-05
Urhuqtuuq	Karen Kharatyan, Derek Donald	NWB	2019-05-17
Iqaluit	Spencer Dewar, Godwin Okonkwo, Ian Parsons	CIRNAC	2019-05-22
Kugluktuk	Geoff Clark, Tannis Bolt	KIA-Lands	2019-05-31
Kugluktuk	Geoff Clark, Tannis Bolt, Coral Newman, Steve Januszewski	KIA_Lands	2019-07-05
Iqaluit	Ian Parsons	CIRNAC	2019-07-05
Kugluktuk	Board of Directors	KIA	2019-07-11
Kugluktuk	Interested potential workers	Public	2019-07-11
Kugluktuk	Amanda Dumond	Kugluktuk Angoniatit Association	2019-07-19
Iqaluit	Spencer Dewar, Godwin Okonkwo, Ian Parsons	CIRNAC	2019-07-25
Kugluktuk	Tannis Bolt	KIA-Lands	2019-07-26
Kugluktuk	Geoff Clark, Steve Januczewski	KIA-Lands	2019-07-30
Kugluktuk	Geoff Clark	KIA-Lands	2019-09-14
Ikaluktuttiak	Tara Arko, Jonathan Savoy	NIRB, NPC	2020-01-14
Iqaluit	Claudine Santos	Senate of Canada	2020-01-21
Kugluktuk	Geoff Clark, Peter Taptuna	KIA-Lands	2020-01-21
Urhuqtuuq	Karen Kharatyan, Derek Donald	NWB	2020-01-21
Iqaluit	David Kunuk, Erika Zell, Paul Budkewich	GN	2020-01-22
Iqaluit	Adrian Paradis	CanNor	2020-01-23
Kugluktuk	Don Leblanc	Hamlet of Kugluktuk	2019-11-20
Kugluktuk	Matt Stadnyk	Hamlet of Kugluktuk	2019-10-04

Kugluktuk	Mark Franche	Hamlet of Kugluktuk	2019-10-26
Kugluktuk	Don Leblanc, Matt Stadnyk	Hamlet of Kugluktuk	2019-09-18
Iqaluit	Isa Qamaniq-Msaon	CIRNAC	2019-12-31

# Angiuttauvaktunik

Naunaiqlugu nunanga talvani havauhikhaq ittuq:

Kitikmeot

## Angiuttauvaktunik

Munariniqmut Ayuittiaqtuq	Angirutinga Qanurittuq	Tadja Qanurittaakhaanik	Ublua Tuniyauyuq/Uuktuqtuq	Umikvikhaa Ublua
Kitikmeot Inuit Katimayiingit	Land Use Licence III Awaiting licence assignment	Applied, Decision Pending		
Nunavut Imaligiyyit Katimayit	Type B Water Licence 2BM-ULU1520	Active	2015-05-12	2020-05-11
Government of Nunavut, Department of Culture, Language, Elders, and Youth	Archaeological research permit	Not Yet Applied		
Aboriginal and Northern Affairs Canada	Class B land use licence	Not Yet Applied		
Iqalukhiurniqmut Tariuqmilu Kaanata	Fish collection permit	Not Yet Applied		
Nunavut Kavamanga, Avatiliriyikkut	Wildlife research permit	Not Yet Applied		
Nunavunmi Ihivriunniqmut Timiqutigiyanga	Scientific research permit	Not Yet Applied		

## Project transportation types

Transportation Type	Qanuq Atuqtauniarmangaa	Length of Use
Air	Ulu is mainly accessed by fixed wing aircraft at the existing Ulu airstrip. Sometimes, helicopters may be used, or aircraft may land on an ice strip on an adjacent lake.	
Land	Historically, and possibly in the future, Ulu was access by an overland winter trail to Contwoyto Lake	

## Project accomodation types

Temporary Camp

Nunauyuq

# Ihuaqutivaluin Atuqtauyukhan

Hanalrutit atuqtaunahuat (ukuallu ikuutat, pampiutainnik, tingmitinik, akhaluutinik, hunaluuniit)

Hanalrutit Qanurittuq	Qaffiuyut	Aktikkulaanga – Qanurittullu	Qanuq Atuqtauniarmangaa
Drill rig	tbd	various	surface and underground exploration drilling
Helicopter	tbd	various	crew and supplies transport
Fixed wing aircraft	tbd	various	crew and supplies transport
Generators	tbd	various	camp and drill power
Water pumps	tbd	various	Camp and drill water supply
Snowmobiles	tbd	various	Crew transport
Snow cat	tbd	various	crew and supplies transport
Watercraft	tbd	various	Crew transport, water sampling
Compressors	tbd	various	camp, drill and equipment operations and maintenance
ATV	tbd	various	crew transport
Skid steer	tbd	various	camp operations, progressive reclamation
D8 Cat	tbd	various	camp operations, progressive reclamation
Grader	tbd	various	camp operations, progressive reclamation, airstrip maintenance
Excavator	tbd	various	camp operations, progressive reclamation
Incinerator	2	various	waste management
Haul truck	tbd	various	camp operations, progressive reclamation, bulk sampling
Pick-up truck	tbd	various	Crew transport
Bus	tbd	various	Crew transport
Sled	tbd	various	equipment and supplies transport
portable camp	tbd	various	Winter trail support, emergency shelter, exploration camp

## Qanurittuq Urhuqyuaq unalu Qayangnaqtut Hunavaluit Aturninnga

Qanurittuq urhuqyuaq hunavaluit aturninnga:	Urhuqyuaq Qanurittuq	Qaffiuyut qattaryut	Qattaryuk Aktikkulaanga	Atauttimut Qaffiuyut	Ilanga	Qanuq Atuqtauniarmangaa
Aviation fuel	fuel	132	200	26400	Liters	Aircraft fuel
Gasoline	fuel	33	200	6600	Liters	Equipment fuel
Diesel or biodiesel	fuel	935	200	187000	Liters	Camp and equipment fuel
Propane	fuel	10	100	1000	Lbs	Camp fuel
Lubricants, greases and coolants	hazardous	100	10	1000	Gallons	Camp, drill and equipment maintenance
Drilling fluids	hazardous	100	10	1000	Gallons	Drilling

Calcium chloride	hazardous	100	50	5000	Lbs	Drilling
Oxygen	hazardous	10	100	1000	Lbs	First aid, camp and equipment maintenance
Acetylene	hazardous	10	100	1000	Lbs	Camp and equipment maintenance
Packaged explosives (ANFO)	hazardous	135	55	7425	Lbs	Quarrying

**Imaqmik Aturninnga**

<b>Ubluq qanuraaluk (m3)</b>	<b>Aturumayain imavaluin utiqittagaani qanuq</b>	<b>Atulirumayain imavaluin utiqittagani humi</b>
299	Pump with screened intake	Lakes adjacent to camp, drills and minesite

# Iqqakuq

## Ikkakunik Munakgiyauyunik

Havauhikhaq Hulilukaarut	Qanurittuq Iqqakut	Ihumagiyauyuq Qanuraaluktut Atuqtait	Qanuq Iqqakuurniarmangaa	Halummaqtirarnirutikhan piyutin
Camp	Ikulalaaqtun iqqakuuvaluin	Various	Incinerate	Dispose of incinerator ash at a suitable facility.
Site Cleanup/Remediation	Ikulalaaqtun iqqakuuvaluin	various	Open burn large, clean combustible wastes	Dispose of burn pan ash in a suitable facility
Camp	Ikulalaaqtun iqqakuuvaluin	Various	Open burn large, clean combustible wastes	Dispose of burn pan ash in a suitable facility
Mineral Exploration	Ikulalaaqtun iqqakuuvaluin	Various	Incinerate	-
Mine Development/Bulk Sampling	Ikulalaaqtun iqqakuuvaluin	Various	Incinerate	Dispose of incinerator ash at a suitable facility.
Advanced Mineral Exploration	Ikulalaaqtun iqqakuuvaluin	Various	Incinerate	Dispose of incinerator ash at a suitable facility.
Camp	Qirnariyaktuq imaq	Various	Discharge to a sump	Run through a grease trap prior to disposal.
Site Cleanup/Remediation	Qayangnaqtut	Various	Backhaul, dispose of at a suitable facility	-
Camp	Qayangnaqtut	Various	Backhaul, dispose of at a suitable facility	-
Mine Development/Bulk Sampling	Qayangnaqtut	Various	backhaul, dispose of at a suitable facility	-
Mineral Exploration	Qayangnaqtut	Various	backhaul, dispose of at a suitable facility	-
Advanced Mineral Exploration	Hivuuranaqtun iqqakuuvaluin	Various	Backhaul, dispose of at a suitable facility	-
Fuel and chemical storage	Hivuuranaqtun iqqakuuvaluin	various	Water accumulating in secondary containment will be processed through a Rain Drain, Spill Monkey or similar filter media prior to discharge to the tundra	-
Site Cleanup/Remediation	Ikulalimanngittun iqqakuuvaluin	Various	Backhaul for disposal off site. Recycle, reuse/repurpose where possible. Landfill on site.	-
Camp	Ikulalimanngittun iqqakuuvaluin	Various	Backhaul for disposal off site. Recycle, reuse/repurpose where possible. If non-hazardous, landfill on site.	-
Mineral Exploration	Ikulalimanngittun iqqakuuvaluin	Various	Backhaul for disposal off site. Recycle, reuse/repurpose where possible. Landfill on site.	-

Mine Development/Bulk Sampling	Ikulalimangittun iqqakuuvaluin	Various	Backhaul for disposal off site. Recycle, reuse/repurpose where possible. Landfill on site.	-
Advanced Mineral Exploration	Ikulalimangittun iqqakuuvaluin	Various	Backhaul for disposal off site. Recycle, reuse/repurpose where possible. Landfill on site.	-
Advanced Mineral Exploration	Atakuin (halumaiqtun nunan, iqqakuuvaluillu uyaqqiqivingmin)	tbd	Cuttings disposal in a sump. Waste rock stockpiled on site, reclaimed in place or disposed of underground at final closure	-
Site Cleanup/Remediation	Atakuin (halumaiqtun nunan, iqqakuuvaluillu uyaqqiqivingmin)	tbd	Treat hydrocarbon contaminated soil in a soil treatment facility (landfarm) on site.	Where it meets suitable criteria, use as cover in landfill and for other remediation activities on site. Any treated soil not meeting suitable criteria will be disposed of off site at a suitable facility.
Mine Development/Bulk Sampling	Atakuin (halumaiqtun nunan, iqqakuuvaluillu uyaqqiqivingmin)	tbd	Waste rock stockpiled on site, reclaimed in place or disposed of underground at final closure	-
Mineral Exploration	Atakuin (halumaiqtun nunan, iqqakuuvaluillu uyaqqiqivingmin)	Various	Cuttings disposal in a sump.	-
Camp	Anaagun (inuin anaaguin)	Various	Incinerate or discharge to a sump	Dispose of incinerator ash at a suitable facility.

**Avatiliriniqmut Ayurhauingit:**

At the time of submission, there appears to be an issue with the NIRB online application form. When filling out the application in this online form, the effects predicted are not saved by the NIRB system correctly: effects predicted to be Negative and Mitigable (NM) are listed as Negative and Non-Mitigable (NN). This issue has been brought to the NIRB's attention, yet remains unresolved at the time of submission. Accordingly, the Applicant directs reviewers to the attached Effects Assessment for a more accurate presentation of potential effects, by activity and phase.

# **Additional Information**

## **SECTION A1: Project Info**

Ulu has historically been accessed by a winter trail to the Lupin Mine on Contwoyto Lake. The Lupin Mine, in turn, historically and currently seasonally connects to existing infrastructure in NWT via the Tibbitt to Contwoyto Winter Road to Yellowknife, operated by the Tibbitt to Contwoyto Winter Road Joint Venture Committee. At a point in the future, should the need arise, the Applicant may wish to construct a seasonal winter trail to support overland resupply. The Applicant will use the same route to Lupin as was used in the past. Depending on the seasonal extent of the Tibbitt to Contwoyto Winter Road, the applicant may need to seek a land use permit from the Mackenzie Valley Land and Water Board to construct a portion of the winter trail along the established Tibbitt to Contwoyto Winter Road corridor to connect to the northern extent of the Tibbitt to Contwoyto Winter Road, which is expected to be in the vicinity of the Ekati Mine, approximately 100 km south of the NWT/NU border. Prior to construction of a winter trail, the Applicant will produce a Winter Trail Management Plan.

## **SECTION A2: Allweather Road**

## **SECTION A3: Winter Road**

Winter road or trail use typically occurs between January and April, depending on conditions on site. Should a winter trail be utilized, no clearing or flooding is undertaken. Equipment using the trail is <10 tonnes vehicle weight and exerts 14 psi pressure. Approximate winter trail width is 4 m.

## **SECTION B1: Project Info**

Gold

## **SECTION B2: Exploration Activity**

Planned exploration activities for Ulu include: Constructing and operating a seasonal temporary camp (new or existing) able to support up to 60 people; Staking, prospecting, sampling and mapping; drilling on land, on ice and underground using diamond and/or rotary air-blast/reverse circulation drilling; mobilization, drill support and access via helicopter, fixed wing aircraft; diesel and jet fuel to be cached at several locations proximal to drill targets and at the camp, and propane to be cached at the camp site; staging to occur via the local existing Ulu airstrip, a regionally accessible airstrip and/or sea lift to nearby communities; local overland winter access for camp and drill support; temporary use of regionally available accommodations and support services; archaeological overview and site assessments, where required; baseline environmental studies. Bulk sampling will involve storage of new waste rock and ore, with processing to occur off site.

## **SECTION B3: Geosciences**

Geophysical and other airborne surveys may be undertaken in the future if needed.

## **SECTION B4: Drilling**

Drill hole locations and depths are to be determined based on ongoing analysis of historic exploration activities, and results of new exploration activities. It is expected that drilling will be limited to the area in the vicinity of the Ulu claim and the existing Hood River claim. Based on future prospecting results, claim boundaries may change in the future, however, it is reasonable to expect that drilling will occur in an area contiguous with that already delineated. Drill additives will be used where required, to the minimum extent possible. Additives vary depending on the nature of the ground encountered. Salt may be used, along with other non-toxic materials. Cuttings will be dewatered to the greatest extent possible and deposited in an adjacent upland sump. Drill water will be recirculated and reused to the greatest extent possible. Excess drill water will be deposited in an adjacent upland sump. Drill equipment will be mobilized by helicopter or overland. Drill holes will be abandoned by cutting the drill stems off at ground level and backfilling any areas of subsidence around drill stems in such a manner as to prevent water accumulation.

## **SECTION B5: Stripping**

N/a

## **SECTION B6: Underground Activity**

Ulu has approximately 1.7 km of underground developed. The underground is temporarily closed. However, the Applicant plans to re-open the underground at a point in the future to support advanced exploration and bulk sampling. The Applicant has initiated engagement with the Mines Inspector, and will have in place appropriate systems and documentation prior to commencing any underground activities.

## **SECTION B7: Waste Rock**

Waste rock from past development activities is currently stored on site. Run-off from existing waste rock storage pile is managed and monitored in accordance with the existing water licence and the existing approved Interim Water Management Plan. Prior to bringing any new waste rock to surface, the Applicant will submit to the NWB for review and approval a new Waste Rock and Ore Management Plan, which will identify waste rock storage areas and outline ML/ARD testing and management.

## **SECTION B8: Stockpiles**

Ore from past development activities is currently stored on site. Run-off from the existing ore stockpile is managed and monitored in accordance with the existing water licence and the existing approved Interim Water Management Plan. Prior to bringing any new ore to surface, the Applicant will submit to the NWB for review and approval a new Waste Rock and Ore Management Plan, which will identify ore stockpile areas and outline ML/ARD testing and management.

## **SECTION B9: Mine Development**

The Ulu mine was historically developed as a satellite deposit for the Lupin Mine. Material was mined, but not processed. Ulu is currently in care and maintenance and undergoing progressive reclamation. Ulu has approximately 1.7 km of underground developed and is temporarily closed. Ore and waste rock from past development activities is currently stored on site. Other mine related infrastructure on site include access/haul roads, an airstrip, a camp, materials storage pads and a small heavy equipment fleet. Historic infrastructure on site that has been reclaimed includes bulk fuels storage facilities, an explosives magazine, a sewage treatment plant and hazardous waste storage areas. The Applicant plans to re-open the underground at a point in the future to support advanced exploration and bulk sampling with offsite processing. Existing facilities and equipment will be used to the greatest extent possible, however it is expected that the current camp will need to be repaired/replaced/relocated.

## **SECTION B10: Geology**

The Flood Zone at Ulu is hosted in meta-basalts in amphibolite metamorphic grade, and is composed of anastomosing shear-hosted auriferous zones. This steeply dipping system has been traced for over 400 metres on surface and over 600 metres below surface. Mineralization on Ulu possesses in general several attributes common to other Archean gold deposits including: 1- Shear zones with silica flooding containing veinlets with gold and arsenic mineralization; 2- Mineralization in close relationship to the hinge of an anticline, as well as the presence of late stage quartz-feldspar porphyry dykes; 3- The deposit is located at a zone of high competency contrast between a basalt-sediment contact; 4- Gold is intimately associated with very fine acicular arsenopyrite within zones of intense silicification and quartz veining. The typical alteration assemblage includes quartz + biotite + amphibole (actinolite) + titanite + epidote + clinopyroxene + tourmaline; and, 5- Multiphase deformation is exhibited by the presence of crack-seal veins, re-brecciation, and crosscutting mineralised zones. Both brittle and ductile features are often present. However, mineralization at Ulu is unusual relative to the norm for Archean orogenic gold deposits, in that it is not associated with a significant, first-order, belt-scale structure. Prior to bringing any new ore to surface, the Applicant will submit to the NWB for review and approval a new Waste Rock and Ore Management Plan, which will identify ore stockpile areas and outline ML/ARD testing and management.

## **SECTION B11: Mine**

N/a

## **SECTION B12: Mill**

N/a

## **SECTION C1: Pits**

Historically, an adjacent esker has been used to supply granular materials for site construction activities. The Applicant is in the process of identifying potential locations of nearby sources of additional suitable construction materials. Should a new suitable source be found and development planned, a Quarry Management Plan will be developed and provided to the NWB and parties for review and approval.

## **SECTION D1: Facility**

### **SECTION D2: Facility Construction**

### **SECTION D3: Facility Operation**

### **SECTION D4: Vessel Use**

### **SECTION E1: Offshore Survey**

### **SECTION E2: Nearshore Survey**

### **SECTION E3: Vessel Use**

## **SECTION F1: Site Cleanup**

The main activity currently underway at the Ulu site is progressive reclamation of legacy waste and infrastructure. The Applicant has recently acquired this project and plans to continue with the progressive reclamation activities, and seeks to undertake new activities requiring additional facilities. The Applicant wished to construct a non-hazardous waste landfill for disposal of non-hazardous waste and non-salvageable equipment and materials on site. The landfill is planned to occur within the existing footprint of the Ulu site. The landfill design is currently underway. The landfill design and the Landfill Operations and Maintenance Manual will be submitted to the NWB for review and approval as an amendment to the existing water licence. The Applicant wished to construct a soil treatment facility (landfarm) to treat legacy hydrocarbon contaminated soils found on site. The soil treatment facility is planned to occur within the existing footprint of the Ulu site. The soil treatment facility design is currently underway. The facility design and the Contaminated Soil Excavation and Soil Treatment Facility Management Plan will be submitted to the NWB for review and approval as an amendment to the existing water licence. Borrow or quarry rock is required for the construction of these facilities. Refer to response to section C1. The existing camp is functional, yet aging and in disrepair. While it may be used early in the program, a new camp location will be chosen and a new camp constructed, using salvaged materials to the greatest extent possible. Unsalvageable components of the camp will be disposed of in the on site landfill.

## **SECTION G1: Well Authorization**

## **SECTION G2: Onland Exploration**

## **SECTION G3: Offshore Exploration**

## **SECTION G4: Rig**

## **SECTION H1: Vessel Use**

## **SECTION H2: Disposal At Sea**

## **SECTION I1: Municipal Development**

## **Qanurittuq Ittunik Avatinga: Avatingalluanga**

The Project is located within the Southern Arctic Ecozone and the Takijuk Lake Upland Ecoregion. Much of this region is composed of unvegetated rock outcrops, in the Hood River watershed. Cryosols are the dominant soils in the lowlands and permafrost is deep and continuous. None of the following protected sites were found within the Project area or immediately adjacent: Important Bird Areas (IBA) (IBA Canada 2019); Key Habitat Sites for migratory birds (Latour et al. 2008); Wetlands of International Importance (RAMSAR) (The Ramsar Sites 2019); Migratory Bird or Wildlife Sanctuaries (Government of Canada 2019); or Heritage Rivers (Canadian Heritage Rivers System 2019).

### **Qanurittuq Ittunik Avatinga: Inuuhimayunut Avatinga**

The Project is located within the Southern Arctic Ecozone and the Takijuk Lake Upland Ecoregion. Outside of the Ulu site existing footprint, vegetative cover is characterized by shrub tundra, consisting of dwarf birch, willow, northern Labrador tea, avens species and blueberry species. Characteristic wildlife includes caribou, muskoxen, grizzly bear, wolverine, Arctic hare, Arctic fox, red fox and wolf. Small mammals (e.g., Arctic ground squirrel, voles, and lemmings) are distributed throughout the region and provide an important food source for predators. Many species of migratory birds are present in the area during the summer season, including waterfowl, raptors, songbirds, and shorebirds, while some bird species are present year round (e.g., ptarmigan, gyrfalcon, and common raven). According to the Species at Risk Public Registry, the following species at risk could be found within the Project area: Barren-ground caribou including Dolphin and Union Populations; Grizzly bear; Polar bear; Wolverine; Peregrine Falcon; Short-eared Owl; Buff-breasted Sandpiper; Common Nighthawk; Eskimo Curlew; and Red-necked Phalarope.

### **Qanurittuq Ittunik Avatinga: Inungit-maniliurutingit Avatinga**

The Project is located approximately 200 km southeast of Kugluktuk in the Kitikmeot Region of Nunavut on Inuit-owned land and is immediately adjacent to the Hood River property, also owned by the Applicant. A number of archaeological assessments have been undertaken in the area in the past; additional studies will be undertaken as needed. Engagements with 3 different HTOs indicate that land and resources use in the area, other than exploration, is limited.

### **Miscellaneous Project Information**

Along with this application, the following new or revised management plans are provided: Spill Response Plan; Environment and Heritage Resources Protection Plan; Wildlife Protection Plan; Engagement Plan. During the NWB's subsequent process to renew and amend the existing water licence, the following Plans will be provided to the NWB and parties: revised Interim Closure and Reclamation Plan; a revised Interim Water Management Plan; revised Waste Management Plan; new Contaminated Soil Excavation and Soil Treatment Facility Management Plan. In the future, should the need arise, the following plans will be drafted: Quarry Management Plan; Winter Trail Management Plan.

### **Naunaiyainiq ukuninnga Ayurhautingit unalu Piumayaat Ikikliyuumiutinahuarutit**

See attached table.

### **Tamatkiumayunik Ihuikgutivaktunik**

The following past, present and reasonably foreseeable projects have been considered as they may interact with Ulu project components: Grays Bay Port and Road; Jericho Mine Site Stabilization; Hood River Gold; Lupin Winter Access; Lupin Mine Closure. Interacting project components include the following: Use of shared infrastructure (airstrip, camp, fuel caches, winter road/trail) during exploration (Hood River), project development (Grays Bay Road), winter road/trail use (Lupin Mine and Access, Jericho Mine); shared use of resources (human, helicopter, fuel caches) during exploration (Hood River) or an emergency response (all). Shared use of existing regional infrastructure such as the Ulu airstrip or the winter road corridor reduces potential impacts to the land by reducing the needs for additional infrastructure. Shared use of human resources among related projects (Hood River and Ulu) provides for more sustainable employment and training opportunities. As the two most proximal projects, being Hood River and Ulu, are owned by the same company cumulative effects arising from overlapping study areas are expected to be minimal due to coordinated efforts and consistent implementation of similar mitigation measures across both projects.

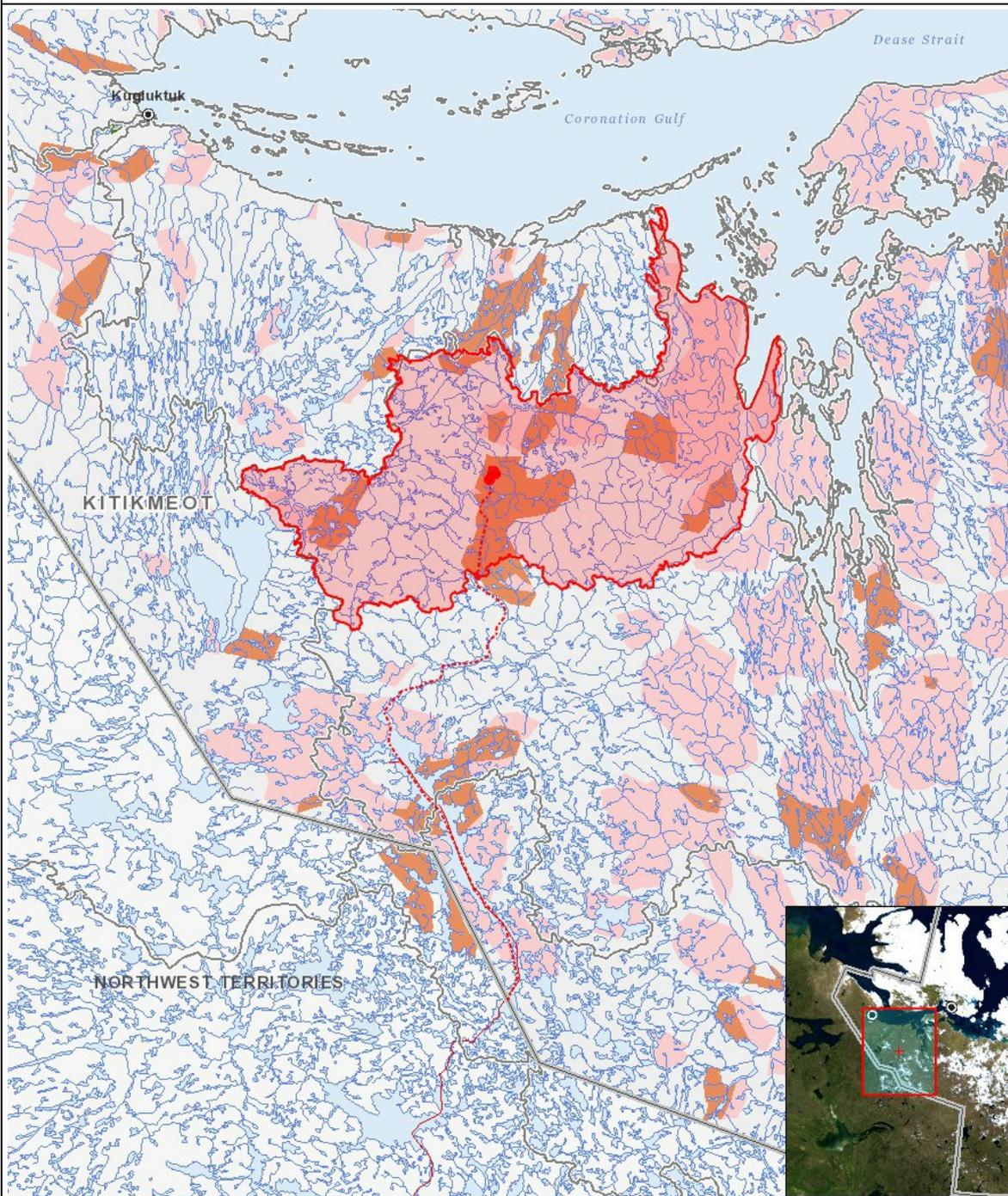
# Impacts

## Ilitariyauniq Avatiliriniqmut Ayurhauingit

	PHYSICAL												BIOLOGICAL		SOCIO-ECONOMIC							
	Designated environmental areas	Ground stability	Permafrost	Hydrology / Limnology	Water quality	Climate conditions	Eskers and other unique or fragile landscapes	Surface and bedrock geology	Sediment and soil quality	Tidal processes and bathymetry	Air quality	Noise levels	Vegetation	Wildlife, including habitat and migration patterns	Birds, including habitat and migration patterns	Aquatic species, incl. habitat and migration/spawning	Wildlife protected areas	Archaeological and cultural historic sites	Employment	Community wellness	Community infrastructure	Human health
<b>Havakvinga</b>																						
Airstrip use or construction	-	M	-	-	-	-	-	-	-	-	-	M	N	N	-	-	-	N	P	-	P	-
Advanced Mineral Exploration	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Aulapkaininnga</b>																						
Airstrip use or construction	-	-	-	-	-	-	-	-	-	N	N	-	N	N	-	-	-	-	-	-	P	-
Advanced Mineral Exploration	-	N	N	-	N	-	P	N	-	N	N	-	N	N	N	-	-	P	P	-	-	-
<b>Piiqtauniq</b>																						
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

(P = Nakuuyuuq, N = Nakuungittut unalu mikhilimaittuq, M = Nakuungittut unalu mikhittaaqtuq, U = Naluyauyuq)

# Havaariyauyukhamut Nayugaa



## List of Project Geometries

1	polygon	Ulu Mineral Claim
2	polygon	Study area
3	polyline	Winter trail
4	point	Airstrip
5	point	Ulu site