

$\gamma_b \Delta^c \dot{\gamma} \cap \sigma^b \quad \wedge c_n \nabla^{\gamma_b} \gamma_{\sigma} \nabla^n \nabla^b \gamma^a \sigma^b$

ᑭᓇᓇᓱᓯᑦ: To meet the construction demands of the community, Kugaaruk quarry sites will be used to extract aggregate (gravel, sand etc...). These sites are located south of Kugaaruk, the equipment working on site if approved, will be dump trucks to haul aggregate, crushers to break up material and loaders to extract aggregate. These quarries will remain active until all aggregates are depleted. The Hamlet will use the proceeds from Quarry permit fees to remediate the area to a point in which the area's vegetation can grow back. These sites contain gravel, sand, and silt suitable for construction purposes and road maintenance in reasonable quantities which makes these sites desirable locations. These sites are near Kugaaruk resulting in easier access for the residents of the community to retrieve gravel, also minimizing costs to the contractors and the Hamlet due to the fact that the dump trucks do not need to travel long distances. There are existing access roads to all quarry sites.

ᐃᐃᐱᑦ: Pour répondre aux besoins en construction de la collectivité, les carrières de Kugaaruk, au sud du hameau, serviront à l'extraction de granulats (gravier, sable, etc.). Si le projet est approuvé, l'équipement qui sera utilisé sur place consistera en des camions à benne, des concasseurs et des chargeuses qui serviront respectivement à transporter, à fragmenter et à extraire le granulat. Les carrières seront exploitées jusqu'à l'épuisement du granulat. Le hameau utilisera les revenus des permis d'exploitation pour restaurer les sites afin que la végétation puisse y repousser. Les sites en question contiennent de bonnes quantités de gravier, de sable et de silt pouvant servir à la construction et à l'entretien des routes, ce qui fait d'eux des terrains convoités. Les sites étant près de Kugaaruk, il sera facile pour la population de se procurer du gravier. De plus, cela réduira les coûts pour les entrepreneurs et pour le hameau, car les camions à benne n'auront à voyager que sur une courte distance. Il existe déjà des voies d'accès aux deux carrières.

[illegible]

Inuinnaqtun: Hailihimajaanginni nappaqtirnikkut ihiriagi jaujuni nunallaami, Kugaaruk ujaraliaqtarviit atuqtauniatun amuhijaami ujaralianik (ujaraliat, hiurat aallallu...). Ukuat najugait ittut hivuraanin Kugaaruk-min, akhaluutirjuat hapkuat havangniaqtun ujaraliaqtarvingmi angiqtaukpata agjaqtautit akhaluutit agjariami ujaralianik, pilurjaktirijiit ahiruqtirijaami ujaranik pualrihautillu amuhijukhat ujaralianik. Hapkuat uraliaqtarviit atuqtaraanginnarniaqtun talvunga ujaraliaqtarviit nunguttaukpata. Haamlatkut aturniaqtait maniliurutit talvunga Ujaraliaqtarvingmin laisikkut akingit pinnirharnirnun nunami talvunga nunaup nauttiangit nauffaalirianginnun. Hapkuat ujaraliaqtarviit pilgit ujaralianik, hiurarnik pujutun-ittunin hiurarnin nakuujun nappaqtirnikkut hulidjutiknun apqutinilu ihuarhaidjikhannun nakuujuni amigainninginni pidjutijun hapkuninga ujaraliaqtarvingni pijumajauulluarviujunik. Hapkuat ujaraliaqtarviit qanittun Kugaaruk-mun pidlutiplitik ajurnaitqijamik pijaami nunallaamiutanun ujaraliaqtariami taimaalu akittuqtiavallaangitait akinginnun kaantraaktinun Haamlatkunnullu talvannga akhaluutirjuat ungahiktuliangidjutainnun. Pilik tahamaniittuni apqutikhanik tamarmingnun ujaraliaqtarvingnun.

Personnel

Personnel on site: 2

Days on site: 1500

Total Person days: 3000

Operations Phase: from 2021-07-19 to 2031-07-19

Λ c n ◁ n ↗ ▷ σ ◁ ^{q_b})^c

ᐃ ᑭ	ᖃᓄᐱᑦᑐᑭᑦ ᐱᑕᓚᐳᖃᑦᓂᐳᖃᑦ <	ᑭᐅᑭᑦ ᓄᓇᖃᑭᑦᑕᓂ	ᑐᐳᑯᑭᑦᐳᑦᐳᑦ ᓄᓇᑯᑦ ᖃᓄᖃᑦ ᐳᑐᑭᑯᑦᑯᑦᑯᑦ ᑭᑭᑦᑯᑦᑯᑦᑯᑦ	ᐱᑦᐳᑦᓂᑕᖃᑦᐱᑯᑦᑯᑦᑯᑦ< ᐱᓄᓄᑦ ᓇᑭᑯᑯᑦᑯᑦᑯᑦᑯᑦᑯᑦᑯᑦ ᑕᐱᑦᑭᑯᑦᑯᑦᑯᑦᑯᑦᑯᑦ	ᖃᓂᓄᓂᖃᑦᑭᑦᑯᑦ ᓄᓇᑕᑭᑯᑯᑦᑯᑦ ᐳᑭᑯᑦ ᐳᑯᑦᑯᑦᑯᑦᑯᑦᑯᑦᑯᑦ ᑭᓇᓄᑦ
Lot 264 Plan 4689	Quarry/Borrow pit	Municipal	N/A	N/A	2.1 km
Lot 267 Plan 4689	Quarry/Borrow pit	Municipal	N/A	N/A	2 km
Lot 269 Plan 4689	Quarry/Borrow pit	Municipal	N/A	N/A	1.7 km
Lot 270 Plan 4689	Quarry/Borrow pit	Municipal	N/A	N/A	3 km

မေ့ဉ်း အသံအသွယ်အသွယ် မေ့ဉ်း အသံအသွယ်အသွယ် အသံအသွယ်အသွယ် အသံအသွယ်အသွယ်

ᑭᓇ ᑦᑳᑦ	ᐱᐅᐸᑦ	ᑲᐅᐸᐱᑦᑲᐅᐸᑦ	ᑦᑲᑦᑲᑦ ᐅᐸᑦᑲᐅᐸᑦᑲᐅᐸᑦ
ᐃᐅᑦᑲᑦ	Blandina Kakkianium - PLA	Hamlet of Kugaaruk	2021-09-01
ᐃᐅᑦᑲᑦ	Chantal Dowden - SAO	Hamlet of Kukaaruk	2021-09-01

ሬፈላኦቶ ለገጫዊ ልማት ምርጫ

ሬፈላኦቶ ለሬፈላኦቶ ልማት ምርጫ በበላይ:

Kitikmeot

ሬፈላኦቶ ለገጫዊ ልማት ምርጫ

ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ	ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ	ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ	ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ	ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ
ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ ሬፈላኦቶ ለገጫዊ ልማት ምርጫ	CGS Authorization letter	Active	2021-09-02	

Project transportation types

Transportation Type	ሬፈላኦቶ ለገጫዊ ልማት ምርጫ	Length of Use
Land	access to the sites will be through the currently established dirt roads	

Project accomodation types

ሬፈላኦቶ ለገጫዊ ልማት ምርጫ

◀▷↳◀⁹⁶▷⁹⁶

Λ⁹d^c d^ab^rz^s d^jb^cd^pσ^dy^z^s Δ^cb^rdⁿω^r^c ΔjCΔ^c, Γ^cωd^pñ^c, y^blCj^s^b, ωσ^rd^c d^r^ab^rc^ω

ᐃᓕᑦᑲᓄᑦ ᐱᓂᑦ ᐋᑐᒪᐅᓂᐋᓖᑐᓖᓖ ᓖᓂᓄᐅᑦᑐᓂᓖᒪ	ᓖᓂᑦᑲᑦᑲᑦ	ᐃᓕᑦᑲᓄᑦ - >ᓖᓂᓄᑦᑲᑦ	ᑭᐊᑦᑲᑦ ᐋᑐᒪᐅᓂᐋᓖᑲᑦ
Loader	1	5.7m x 2.7m	excavate quarry material
Dump Truck	1	2.5mx3.4m	Haul quarry material
Water Truck	1	10 tons	Dust control
Crusher	1	15 tons	to crush large material

በበፍጥረቱ ሂደት ውስጥ የሚከሰቱትን ለውጦች ለመቆጣጠር የሚያስፈልጉትን ምርመራዎች ማድረግ ይቻላል።

ᐱᓄᑦ ᐸᓇᑦ ᐃᓂᐳᓕᐱᓚᐱᓂᐳᓕ ᐱᓄᑦ ᐸᓇᑦ	ᓂᓗᐅᑦᑐᓕᓚᓂᐃᓂ ᐃᓂᐳᓕᐱᓚᐱᓂᐳᓕ	ᓂᓗᐅᑦᑐᓕᓚᓂᐃᓂ ᐃᓂᐳᓕᐱᓚᐱᓂᐳᓕ	ᐃᓂᐳᓕᐱᓚᐱᓂᐳᓕ ᐃᓂᐳᓕᐱᓚᐱᓂᐳᓕ	ᓂᓗᐅᑦᑐᓕᓚᓂᐃᓂ	ᐃᓂᐳᓕᐱᓚᐱᓂᐳᓕ ᐃᓂᐳᓕᐱᓚᐱᓂᐳᓕ	ᐃᓂᐳᓕᐱᓚᐱᓂᐳᓕ ᐃᓂᐳᓕᐱᓚᐱᓂᐳᓕ
Gasoline	fuel	1	1	1	Liters	Fuel will be provided by the Hamlet's facilities and supplies. There will be no storage of fuel on site.
NA	hazardous	1	0	0	Liters	There will be no storage of hazardous material on site.

$\Delta L^{\epsilon_b} \triangleleft \triangleright^{\epsilon_b} C \triangleright \triangleleft \dot{L}^{\epsilon_b} \triangleright^{\epsilon_b}$

$\mathcal{D}^c \rightarrow \mathcal{C} \dot{\mathcal{I}}^{\mathfrak{f}_b} \mathcal{A} \mathfrak{f}_b \mathcal{C} \mathcal{D} \sigma \mathcal{A}^{\mathfrak{f}_b} \mathcal{C}$	$\mathfrak{f}_b \rightarrow \mathfrak{f}_b \Delta \Gamma^{\mathfrak{f}_b} \mathcal{C}^{\mathfrak{f}_b} \mathcal{C}^{\mathfrak{f}_b} \sigma \mathcal{A}^{\mathfrak{f}_b} \mathcal{C}$	$\mathfrak{a} \mathcal{P}^c \Delta \Gamma^{\mathfrak{f}_b} \mathcal{C}^{\mathfrak{f}_b} \mathcal{C}^{\mathfrak{f}_b} \sigma \mathcal{A}^{\mathfrak{f}_b} \mathcal{C}$
0	n/a	n/a

$\triangleleft^b C d^c$
$$\Delta^b C d_c \sim \sigma \Delta^a \sigma^a$$
[illegible]
$$4^n n! D^n C \circ^C D^C \quad 4^b D^{f_b} C D^L L^C$$

Accidental leaks and spillages of substances such as fuel or petroleum-based lubricants - if this occurs the Hamlet will call the NU 24-hour spill report line at (867) 920-8130 and immediately extract and remove the aggregate at the point of the spill. The contaminated soil will be relocated to the community land farm. Noise and vibration effects from rock crushing/breaking and machinery.

Additional Information

SECTION A1: Project Info

SECTION A2: Allweather Road

SECTION A3: Winter Road

SECTION B1: Project Info

SECTION B2: Exploration Activity

SECTION B3: Geosciences

SECTION B4: Drilling

SECTION B5: Stripping

SECTION B6: Underground Activity

SECTION B7: Waste Rock

SECTION B8: Stockpiles

SECTION B9: Mine Development

SECTION B10: Geology

SECTION B11: Mine

SECTION B12: Mill

SECTION C1: Pits

No known carving stone deposits are located in this area. If a carving stone deposit is located then extraction of aggregate will cease until the Municipality decides what they wish to do. The extraction of the aggregate will go down 1- 3 meters. Should flooding become an issue, drainage ditches will be constructed to promote drainage away from the pit. Hamlet will continually monitor erosion or potential for erosion and implement control measures to minimize erosion. Minor slumping may occur to the landscape due to the extraction of aggregate but will be levelled off once the quarry is depleted. No evidence of ice lenses in the area. Hamlet does not blast and do not foresee having to blast. We will inform the public about the sight, and post signs around the site about the safety. Staff will also follow WSCC safety regulations around the site and area. Once this site is depleted of essential aggregate, the quarry will be levelled off to avoid any steep ditches using sand, silt and any other undesirable aggregate.

SECTION D1: Facility

SECTION D2: Facility Construction

SECTION D4: Vessel Use

SECTION E2: Nearshore Survey

SECTION E3: Vessel Use

SECTION F1: Site Cleanup

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 11: Municipal Development

ᐱᓪᓇ ᐃᑦᐅᐅᑦ ᖃᓄᐃᑦᑐᑦ ᑕᓚᐅᓂᖅ: ᓄᓇᐅᑦ ᖃᓄᐃᑦᑐᓂᖅ

Air quality – Appears excellent. There is no reason to believe that air quality should not be excellent.
Climate conditions and predicted future climate trends – The arctic is undergoing apparent raise in average temperature in the long term. This will have no incidence of this quarry.
Noise levels – Noise level is of low concern but will be typical of such heavy equipment.

ᐱᓐᓇ ᐱᓚᐅᓐ ᓂᓄᐱᓐ ᓇᓇᐅᓐᓇᓐ: ᐅᐱᓐᓇᓐᓇᓐᓇᓐ

Wildlife, including habitat and migration patterns – No wildlife observed, although any wildlife observed will be respected at all times during the work. Birds, including habitat and migration patterns – No birds observed, although any wildlife observed will be respected at all times during the work.

ᐱᓪᓇ ᐱᑦᑎᐅᑦ ᑦᑲᓄᐃᑦ)ᑦᑕᑎᐅᑦᓴᑦ; ᐃᓄᑦᑎᑦᑦᑭᓴᑦᐱᑦᑕᐱᑦᑕᑎᑦᑦᑭᓴᑦ

Archaeological and culturally significant sites (e.g. pingos, soap stone quarries) in the project and adjacent areas – None observed. Land and resource use in the area, including subsistence harvesting, tourism, trapping and guiding operations –The area surrounding the quarry areas is used as a gravel extraction activity. There are no subsistence harvesting or tourism activity within the surrounding quarry areas.

Miscellaneous Project Information

Impacts

$\omega \rightarrow \omega \Delta^{\epsilon_b} C D \sigma^{\epsilon_b} \Gamma^C$ $\Delta \epsilon \cap \Gamma D C \dot{\sigma}^C \gamma^C$ $\Delta^b \gamma^{\epsilon_b} C D \Gamma L \dot{\gamma}^C$

Physical																
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																
Biological																
Vegetation																
Wildlife, including habitat and migration patterns																
Birds, including habitat and migration patterns																
Aquatic species, incl. habitat and migration/spawning																
Wildlife protected areas																
Socio - Economic																
Archaeological and cultural historic sites																
Employment																
Community wellness																
Community infrastructure																
Human health																

$$(P = \langle b \rangle_{\mathcal{A}} \mathcal{P} \cap \mathcal{L}^{\mathcal{A}} \mathcal{Q}^{\mathcal{B}})^{\mathcal{C}}, N = \langle b \rangle_{\mathcal{B}} \mathcal{P}' \mathcal{L}^{\mathcal{A}} \mathcal{Q}^{\mathcal{B}})^{\mathcal{C}} \langle \mathcal{C} \rangle \mathcal{L}' \mathcal{L}^{\mathcal{B}})^{\mathcal{B}} \mathcal{C} \mathcal{L}^{\mathcal{A}} \mathcal{Q}^{\mathcal{B}})^{\mathcal{C}} \mathcal{C}, M = \langle b \rangle_{\mathcal{B}} \mathcal{P}' \mathcal{L}^{\mathcal{A}} \mathcal{Q}^{\mathcal{B}})^{\mathcal{C}} \langle \mathcal{C} \rangle \mathcal{L}' \mathcal{L}^{\mathcal{B}})^{\mathcal{B}} \mathcal{C} \mathcal{L}^{\mathcal{A}} \mathcal{Q}^{\mathcal{B}})^{\mathcal{C}} \mathcal{C}, U = \mathcal{B} \mathcal{L}^{\mathcal{A}} \mathcal{Q}^{\mathcal{B}})^{\mathcal{C}} \mathcal{B})$$

1	polygon	Lot 264 Plan 4689
2	polygon	Lot 267 Plan 4689
3	polygon	Lot 269 Plan 4689
4	polygon	Lot 270 Plan 4689

