



Post-Closure Phase: from to

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ᓴᐃᓴᐅᖅᑭᖅ	See attached Engagement Summary	HTO, KIA, Landusers	2018-11-13

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## Transboundary

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## Project transportation types

Transportation Type	Construction Access	Length of Use
Air	Construction crews may be mobilized to the Lupin Mine by air.	
Land	Crews will access the road via the existing Tibbitt to Contwoyto Winter Road, from Yellowknife to the Ekati turnoff.	

## Project accomodation types

## Temporary Camp

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Λ<sup>9</sup>δ<sup>c</sup> Δ<sup>9</sup>β<sup>c</sup>Γ<sup>9</sup>Δ<sup>9</sup>σ<sup>c</sup>Δ<sup>9</sup>γ<sup>c</sup> Δ<sup>c</sup>ε<sup>c</sup>Γ<sup>c</sup>Δ<sup>c</sup>Π<sup>c</sup>Δ<sup>c</sup>Δ<sup>c</sup>, Γ<sup>c</sup>Δ<sup>c</sup>Π<sup>c</sup>Δ<sup>c</sup>, β<sup>c</sup>ε<sup>c</sup>Δ<sup>c</sup>Δ<sup>c</sup>, Δ<sup>c</sup>ε<sup>c</sup>Δ<sup>c</sup>Δ<sup>c</sup>

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Loader	2	various	Snow clearing
Ice profiler	2	tbd	Determine ice thickness
Pumps	8	various	winter road construction
Dozer	2	D6	Portage construction
Haglund	1	various	Snow compaction
Water truck	2	various	Road construction
snow cat	2	various	snow clearing
temporary, mobile camp on sled	1	tbd	Emergency shelter for construction crew
grader	3	various	snow clearing
pickup	8	various	snow removal, crew, supplies and fuel (in a tidy tank) transport
side by side	1	tbd	crew transport
Super B	40	tbd	Fuel and lubricant transport
end dump truck	10	tbd	transport parts and tires
drill rig	1	tbd	transport for use at Lupin
B train	2	tbd	transport supplies
flat deck	4	tbd	transport supplies
snowmobile	6	tbd	Transport people and supplies, routing.

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Diesel	fuel	38	40000	1520000	Liters	Transport for use at Lupin
Lubricants	hazardous	5	5	25	Liters	vehicle operation and maintenance
ANFO	hazardous	1	10400	10400	Kg	Transport for use at Lupin. Bags or sticks, to be confirmed
Lime	hazardous	1300	70	91000	Lbs	Transport for use at Lupin
Lubricants	hazardous	2	40000	80000	Liters	Transport for use at Lupin

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49	Pump fitted with a screened intake	Adjacent lakes

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Camp	ᐱᑦᑕᑦ ᐱᑦᑕᑦ ᐱᑦᑕᑦ	Minimal	Backhaul	Disposal at Lupin Mine's existing approved facilities
Camp	ᐱᑦᑕᑦ ᐱᑦᑕᑦ ᐱᑦᑕᑦ	Minimal	Backhaul	Disposal at Lupin Mine's existing approved facilities
Access Road	ᐱᑦᑕᑦ ᐱᑦᑕᑦ	Unknown	Backhaul to suitable facility offsite	Recycle or disposal
Camp	ᐱᑦᑕᑦ ᐱᑦᑕᑦ	unknown	Backhaul to suitable facility off site	Recycle or disposal
Camp	ᐱᑦᑕᑦ ᐱᑦᑕᑦ ᐱᑦᑕᑦ	Minimal	Backhaul to offsite waste receiver	Recycle
Camp	ᐱᑦᑕᑦ ᐱᑦᑕᑦ	Minimal	Backhaul	Disposal at Lupin Mine's existing approved facilities

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See the attached effects assessment, Environment and Heritage Resources Protection Plan, the Wildlife Protection Plan, the Abandonment and Restoration Plan and the Spill Contingency Plan.

# **Additional Information**

## **SECTION A1: Project Info**

The proposed road route is existing and has been used to supply the Lupin Mine in the past. There is 1 portage identified in Nunavut, occurring in the same location as for past road construction, at the south end of Contwoyto Lake near the NWT border. The road route largely occurs on Contwoyto Lake. Exact routing along the lake will occur based on existing conditions experienced at the time of construction. The road will generally be single lane up to 50 wide, with low sloped snow banks to manage snow drifting and to support wildlife crossing. At the portage, a combination of snow fill and ice may be used to construct the road surface, depending on conditions observed at the time of construction. Road maintenance will occur as needed and may include grading, flooding, and snow removal. The road is private, and only project related traffic is planned. Project related traffic during operations is identified in the Equipment Use tab of this application, and cargo is listed under the Materials Use tab. It is expected that approximately 40 super b trains of fuel will go north full and south empty as well as 5 pick up trucks, 10 rock trucks/end dumps and approximately 5 flat beds of supplies. Similar traffic use is expected in the second year. Trucks typically travel along the road in convoys of 3 vehicles. The road route is located entirely within the Nunavut Settlement Area. Other regulatory requirements are as listed within this Application.

## **SECTION A2: Allweather Road**

## **SECTION A3: Winter Road**

Surface preparation includes snow clearing, and if needed, flooding to increase ice thickness. Snow berms may be constructed and compaction may be employed at the portage and other areas where needed, depending on the conditions encountered on site at the time of construction. As the majority of the road route in Nunavut traverses Contwoyto Lake, Contwoyto Lake will be the water source for any flooding that may need to occur. Traffic speeds will occur in accordance with those in place for the Tibbitt to Conwayto Winter Road, as follows for haul trucks: -Driving on Lakes: 25 km/hr loaded, 35 km/hr empty; -Driving on Portages: 30 km/hr loaded and empty; -Traveling through flood zones: 10 km/hr; -Traveling on and off lakes: 10 km/hr loaded, 25 km/hr empty; Pickup trucks may travel up to 80 km/hr. There will be a 24 hr security patrol on the road in a pick up truck at all times to monitor road safety, conditions and wildlife. Contwoyto Lake is a fish bearing water course.

## **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

## 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

## 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

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Refer to the Environment and Heritage Resources Protection Plan, attached.

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Refer to the Environment and Heritage Resources Protection Plan and the Wildlife Protection Plan,

attached.

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Refer to the Environment and Heritage Resources Protection Plan and the Community Engagement Plan, attached.

## Miscellaneous Project Information

The following additional documents are attached: Abandonment and Restoration Plan; Spill Contingency Plan; Waste Management Plan.

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See the attached effects assessment, Environment and Heritage Resources Protection Plan and the Wildlife Protection Plan.

## Cumulative Effects

It is expected that there will be a positive cumulative effect arising from the project as works are in support of ongoing reclamation efforts at the Lupin Mine and progressive reclamation is considered to be beneficial to the physical and biological environment as well as to land users.

## Impacts

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	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																		
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Camp		-	-	-	-	N	-	-	-	-	-	N	N		-	N	-	-	-
Access Road		-	N	-	-	N	-	-	-	-	-	N	N		N	N	N	-	-
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Access Road		-	N	-	-	N	-	-	-	-	-	N	N		N	N	N	-	-
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Access Road		-	N	-	-	N	-	-	-	-	-	N	N		N	N	N	-	-
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$$(P = \langle b \rangle \dot{\cup} P \cap \langle a \rangle^c, N = \langle b \rangle \cap \langle a \rangle^c \cup \langle a \rangle \cap \langle a \rangle^c, M = \langle b \rangle \cap \langle a \rangle^c \cup \langle a \rangle \cap \langle a \rangle^c, U = \langle b \rangle \cap \langle a \rangle^c \cup \langle a \rangle \cap \langle a \rangle^c)$$

1	polyline	Winter road route
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