

Tłicho Government

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October 14, 2011

RE: Tłįcho Government First Round Information Requests for Fortune Minerals Ltd's Proposed NICO Mine Project

The Tłįchǫ Government is pleased to provide the Mackenzie Valley Review Board with our initial information requests (IRs) in response to the Developer's Assessment Report (DAR) provided by Fortune Minerals Ltd. (Fortune) for its proposed NICO Project. The information requests can be found in the attached document, and have been provided also to the developer for review and response on this date.

The Tłįchǫ Government has not been provided adequate time or capacity funding to complete a comprehensive or expert review of the entire Application at this time. Due to capacity constraints, this First Round of IRs is mainly focused on Volume 1 of the DAR, with some minor exceptions. As a result, this round of Information Requests is only partial, and the Tłįchǫ Government reserves the right to request the Review Board add a second round of IRs.

The Tłįchǫ Government has reviewed the traditional knowledge sections of the DAR, but has largely withheld information requests related to this topic at this time. The developer and the Tłįchǫ Government are finalizing negotiations for a more comprehensive, Tłįchǫ Government-led traditional knowledge study (as noted in the DAR) at this time. Many of the concerns we would raise about the current incorporation of traditional knowledge in the DAR should be satisfactorily dealt with by the completion of this independent study.

If you have any guestions, please feel free to contact Laura Duncan at lauraduncan@tlicho.com

Sincerely,

Laura Duncan

Tłycho Executive Officer

Attachment to Tåîchô Government First Round Information Request Letter October 2011

Fortune Minerals Ltd. Nico Mine First Round Information Requests to the Developer

IR Number: TG 1

Source: Taîchô Government
To: Fortune Minerals Limited
Subject: Required Authorizations

DAR Section: 1.3.3, 3.3

Terms of Reference Section: Appendix B (item #3)

Preamble:

In Table 1.3-1 in Section 1.3.3 of the DAR, Fortune lists a series of authorizations required prior to the proposed development proceeding.

In section 3.3, Fortune states "The commissioning of the Plant is subject to permitting, financing, and an agreement with the TłįchQ for use of the TłįchQ Road Route, as well as an agreement to access and construct the NPAR."

It is the Tåîchô Government's understanding that the proposed development cannot proceed without authorizations by the Tåîchô Government in the form of separate Access Agreements for the Tåîchô Road Route (with another developer) and the NPAR. Nonetheless, these authorizations are not listed in Table 1.3-1.

- 1.1 Please identify any authorizations required from the T&ichô Government in order for the project to proceed as currently proposed.
- 1.2 Please identify what progress has Fortune made in consulting with the Tåîchô Government toward these required authorizations.

Source: Tłįchǫ Government **To:** Fortune Minerals Limited

Subject: Timing of Construction of the Proposed Development

DAR Section: 1.2.7; 3.2

Terms of Reference Section: n/a

Preamble:

In Section 1.2.7 of the DAR, Fortune states "For the purposes of this submission, the schedule does not have a start date. Fortune will not initiate construction of the Nico Project until it receives confirmation that the Tłjcho Road Route will be built and a schedule for construction has been prepared."

In Section 3.2 of the DAR, Fortune states "The NICO Project requires year round access and proposes to use the proposed all-season TłįchQ Road Route during operations. During construction of the NPAR, for mobilization of construction equipment and supplies, the NICO Project will require use of the Whatì and Gamètì portions of the current Northwest Territory winter road network, and/or the intermediate component of an extended season winter road, referred to as the Seasonal Overland Road to the same communities. The Seasonal Overland Road would be the first phase of the TłįchQ Road Route, along the same route but built as an overland winter road that would be upgraded to all-season status <u>if</u> the Northwest Territories Department of Transportation (DOT) were to proceed with their plans to build the TłjchQ Road Route." (emphasis added).

Request:

2.1 Please clarify; would Fortune begin construction of the NICO project if only the Seasonal Overland Road has been firmly committed to by the GNWT?

Source: TłįchQ Government **To:** Fortune Minerals Limited

Subject: Scope of Development, including Required Accessory Developments

DAR Section: 2.3.1; 5.1.2.1 (General Setting)

Terms of Reference Section: 2.1

Preamble:

Page 2 of the ToR states that the term "NICO Project" means all the physical works and activities required to extract, concentrate, store, and transport concentrates out of the Mackenzie Valley... A short stretch of road ...from the NICO mine site to this anticipated road would be constructed and maintained by Fortune and is within this scope of development".

At section 5.1.2.1 of the DAR, the developer states "The NICO Project is located in the Wek'eezhii Settlement Area of the NWT, and is surrounded by, but not on, TłjchQ Lands".

- 3.1 Given the scope of development (aka the proposed Project) defined by the Review Board includes the NPAR, and the NPAR is largely if not wholly on TłįchQ Lands, please clarify the statement from section 5.1.2.1.
- 3.2 Please provide a map indicating land ownership status for the entire area encompassed by the scope of development, with an emphasis on the NPAR and mine site areas. Currently Figures 5.1-1 and 5.1-2 do not show this in enough detail.
- 3.3 Please discuss which parties have responsibilities for managing which lands in the area potentially affected by the proposed development, with reference to the above requested map.

Source: TłįchQ Government **To:** Fortune Minerals Limited

Subject: Fortune's New Proposal to Use the Whati Airstrip as its Main Fly-in Transportation Hub

DAR Section:

Terms of Reference Section: n/a

Other Documents: Fortune's September 30, 2011 Update Letter to the MVRB

Preamble:

The developer's September 30, 2011 "Update Letter" to the MVRB public registry announced that the Whati airstrip will be used rather than the airstrip at the mine site. This document says that the GNWT's DOT has been consulted, and that the Whati Community Government will be consulted next (i.e., post-decision). No mention is made of any prior or planned future consultation of the issue with the Tlicho Government.

This represents a new development component that must be fully assessed for potential impacts.

- 4.1 Did Fortune notify the TłįchQ Government or the community government of Whati ahead of its September 30, 2011 submission to the Review Board, about its intentions to make the Whati airport its main air transportation hub? If the answer for either party is no, please identify what rationale was used to not consult with these groups in advance.
- 4.2 How much is the demand on the Whati airport expected to increase as a result of it becoming the main air transport hub for the proposed development?
- 4.3 Please describe all physical improvements and staffing requirements the Whati Airport will require if it becomes the main air transport hub for the proposed development, and list any additional permits, authorizations or license required by the Airport or any other party in order to facilitate these improvements.
- 4.4 Please identify how and when Fortune will seek information about the potential adverse and beneficial impacts of any required expansion of the capacity and use of the Whati Airport, including but not limited to:
 - 4.4.1 Increased flow of transient (i.e., mineworker) populations through the community of Whati itself;
 - 4.4.2 Impacts on public safety of increased air traffic near the community;
 - 4.4.3 Increased aural and visible disturbance within the community from increased air traffic; and

- 4.4.4 Potential for increased disturbance of wildlife that resides near the community or travels nearby during annual migrations.
- 4.5 Please list all further studies the developer will be conducting on the potential for impacts from this new development component prior to the end of the environmental assessment, and:
 - 4.5.1Identify the proposed timelines for these assessments; and
 - 4.5.2 When and how the developer plans to start including the TłįchQ Government and the community of Whati in the assessment of this proposed change to the development.
- 4.6 Please clarify with maps and estimated hectares whether and how the removal of the NICO airstrip and terminal reduces the local study area and direct footprint of the proposed development.

Source: TłįchQ Government **To:** Fortune Minerals Limited

Subject: The Location and Assessment of the Proposed NICO Project Access Road (NPAR)

DAR Section: 3.3.1.2

Terms of Reference Section: n/a

Preamble:

In section 3.2 of the DAR, Fortune states "As the final route of the proposed TłjchQ Road Route was unknown at the time of submission, Fortune has assumed that the start of the NPAR would be located approximately 19 kilometres (km) north along the proposed and recommended 146.6 km routing referred to as alignment D (the former Lupin Mine winter road alignment from the community of Whati) (KAVIK-AXYS Inc. 2008)." (emphases added)

- 5.1 How many hectares will the NPAR and its right-of-way clearing require?
- 5.2 Please provide an estimate of the total costs that the developer anticipates bearing in order to upgrade the NPAR to the level that is needed to operate a mine, and maintain it until it is no longer required for the mining operation.
- 5.3 Please provide a map indicating the full range of possible "starting points" for the NPAR in terms of distance from the mine site.
- 5.4 Does Fortune require authorizations from the TłįchQ Government prior to being allowed to proceed with the development of the NPAR? To Fortune's knowledge, what information does the TłįchQ Government require prior to issuing any such authorization?
- 5.5 Please detail progress to date in gaining any required access agreements with the TłįchQ Government for development and use of the NPAR.
- 5.6 Has Fortune sought TłįchQ Government input in the identification of the best routing options for the NPAR? Please identify in detail all these opportunities for TłįchQ input.
- 5.7 Is Fortune open to alternative routing alignments for NPAR? What criteria did Fortune use in determining the currently proposed NPAR alignment?

Source: TłįchQ Government **To:** Fortune Minerals Limited

Subject: Proposed Marion River Bridge

DAR Section: 3.3.1.2

Terms of Reference Section: n/a

Preamble:

In section 3.3.1.2 of the DAR, the developer states: "There are 5 minor water crossing proposed along the route that will make use of larger 800 mm culverts, one major crossing at the Marian River that will use a girder-type bridge structure, and an additional 60 ephemeral topographic lows that the route will cross."

- 6.1 Were TłįchQ citizens or the TłįchQ Government consulted in the determination of the location, type, structure, visibility and/or impacts of the building of a permanent structure bridge over the Marian River?
- 6.2 Has there been any on-territory mapping or other fieldwork with traditional knowledge holders about the proposed site for building this bridge?
- 6.3 Please provide details on what alternative locations and bridge construction types have been considered for the Marian River crossing, and what criteria were used to decide the preferred option, with discussion of the pros and cons of the different alternatives.
- 6.4 Will the bridge affect navigability?
- 6.5 Will the bridge affect fish and aquatic habitat?6.5.1 If so, what are the developer's plans for compensation for potential habitat loss?

Source: TłįchQ Government **To:** Fortune Minerals Limited

Subject: Locations of, and Potential Impacts of, Proposed Borrow Sources

DAR Section: 3.10.2.9

Terms of Reference Section: n/a

Preamble:

Fortune has identified up to 10 borrow sources that may be used during construction. While preliminary locations are identified in Figure 3.2-2 in the DAR, the developer states that "The size and final location of the quarries would be decided following determination of the TłįchQ Road Route, confirmation of the NPAR alignment, completion of geochemical and geotechnical investigations, and completion of consultation with the TłįchQ Government."

This leaves uncertainty about the size and final location of these quarries, and makes assessment of their contribution to the total impact load of this proposed development difficult.

- 7.1 One concern about borrow sites is always the potential for damage to cultural heritage resources, physical or otherwise. What steps would the developer take to assess the potential for these type of effects at each borrow site, and who would be involved?
- 7.2 When is consultation on the issue of actual locations of borrow sites planned with the TłįchQ Government? What sort of information about proposed sites will be provided for TłįchQ Government consideration?

Source: TłįchQ Government **To:** Fortune Minerals Limited

Subject: Avoidance/Alienation of TłįchQ Citizens from the TłįchQ Land Base and Risk Communication

DAR Section: 5.3.2.6, 5.3.3.4 Terms of Reference Section: n/a

Preamble:

The DAR identifies concerns raised by interview participants, including elders, about caribou health between Hislop Lake and Lac La Martre, impacts on wildlife near the NICO Project should it proceed, hunting access along the Marian River and future health risks from potentially contaminated country food (p5-19 and 5-20). It also identifies that people from Gameti "questioned if it will be possible to continue fishing along the Marian River if the NICO Project is developed".

It is a well established concept in environmental impact assessment that "perceived" risks can have very real impact outcomes in terms of human land use and occupancy. For example, "perceived" contamination of country food or water sources may lead to avoidance of areas even where scientific evidence is limited or even contrary to this perception. Eliminating or minimizing risk perception through effective risk communication is a valuable tool to maximize continued meaningful conduct of the aboriginal mode of life on the land.

- 8.1 Were any questions asked during the Golder/Fortune TK Study about areas harvesters currently avoid due to "perceived" contamination or other environmental risks?
 - 8.1.1 If yes, what areas were identified and what risks raised?
- 8.2 What efforts has the developer made to communicate about historic, current and potential future contamination and other environmental risks associated with the local and regional study area?
- 8.3 What commitments does or has the developer made to ensure that TłįchQ citizens have access to accurate, credible, and comprehensive information about the absolute and relative health risks of continuing the Dene mode of life in the local and regional study area?

Source: TłįchQ Government **To:** Fortune Minerals Limited

Subject: Unimpeded Access to Land for TłįchQ Citizens

DAR Section: 3.12.1.2

Terms of Reference Section: n/a

Preamble:

The DAR states that "The NICO Project will have a security presence 24 hours a day, 7 days a week, augmented by closed circuit television. The security team will clear any unauthorized persons coming into the NICO Project Lease Boundary." It goes on to state that the developer's security policy "gives a security officer authority to search a person who is entering, leaving, or who is already on Fortune premises. It also allows a security officer to search any article in that person's possession. Security officers may also require the removal of a coat, jacket, headgear, gloves, or footwear. Security officers also have the authority to search the vehicle of anyone leaving or arriving on-site."

- 9.1 Please identify what objects Fortune feels are most likely to be targeted by would-be thieves, and why there is such a concern about loss-prevention at this development.
- 9.2 Please define "authorized persons" or the reverse "unauthorized persons" as it is used in the above statement.
- 9.3 What allowances will the mine make for TłįchQ elders, harvesters and travellers who are making their way through their traditional territory, if any? How will safe passage in or around the area be accommodated?
- 9.4 As proposed, the security system and infrastructure being set up appears designed to create an industrial bubble which may also have an associated avoidance zone for TłįchQ harvesters. Does the developer have any predictions about how large this "avoidance zone" might be, based on dialogue with TłįchQ citizens, the TłįchQ Government, or any case studies?
- 9.5 The Security Policy seems very strongly worded, and could impact on elders, or harvesters or family feeling comfortable coming to site. It may be useful to have the policy reviewed with the NWT Human Rights Commission (HRC)? If this is done, please provide the comments to the public record of the discussion with the HRC.

Source: TłįchQ Government **To:** Fortune Minerals Limited

Subject: Wildlife harvesting and access management

DAR Section: 20

Terms of Reference Section: n/a

Preamble:

At page 20-7, the developer states "It is expected that the incremental and cumulative increase in the harvest of caribou associated with improved access from the NPAR and Proposed TłįchQ Road Route will be within or approach the upper limits of baseline harvesting values (low to moderate magnitude). The duration of impacts to caribou from increased access is predicted to be permanent as these roads will likely be maintained well beyond the temporal boundary of the assessment (i.e., more than 21 years construction through closure])."

The DAR also states that "Current harvest numbers indicate that harvesting pressure is unlikely to be a limiting factor for moose, marten, and muskrat populations in the area surrounding the NICO Project. Should harvesting on the proposed TłįchQ Road Route or NPAR reach a level of concern, the TłįchQ Government or the Wek'èezhìi Renewable Resources Board could enact regulations to control the harvest."

Roads and access management are key drivers of unsustainable wildlife harvesting in terrestrial ecosystems. Fortune Mineral's statement that incremental and cumulative increase in wildlife harvesting (including caribou, moose, marten and muskrat) will be of low to moderate magnitude relative to current harvesting activities, has no basis in empirical data at the local or regional scale and at the very least requires a dedicated monitoring program to address issues of harvesting and access management.

- 10.1 Please identify all policies, plans and commitments Fortune has for the development, implementation and funding of an access management program which specifically addresses use of the NPAR and Proposed TłjchQ Road Route by wildlife harvesters.
- 10.2 Please identify all of the developer's commitments for monitoring and managing use of the roads by wildlife harvesters throughout the lifetime of the project.
- 10.3 Please identify all relevant sources (and/or assumptions) used to estimate current levels of harvesting in the potentially affected area.

- 10.4 Please identify how the developer's access management plan will incorporate local and traditional knowledge, including about land use patterns.
- 10.5 Please identify what parties the developer will work with or is working with in the development and implementation of the access management program.

Source: TłįchQ Government **To:** Fortune Minerals Limited

Subject: Measurable endpoints for caribou

DAR Sections: Table 6.2-1 (Page 6-6); Table 8.1-2 (Page 8-5)

Terms of Reference Section: n/a

Preamble:

The DAR states that the KLOI for caribou is based upon the trend and comparison of "assessment endpoints" and "measurable endpoints" across three scenarios described in the DAR as Baseline, Application and Future Cases (Table 6.5-1; p. 6-15). Fortune Minerals uses the following indicators as "measurable endpoints", to develop its rationale behind its principle conclusions that effects of the NICO Mine to caribou habitat will be negligible, and that "the magnitude of changes to the harvesting potential of caribou from the incremental and cumulative impacts from the NICO Project and other developments are expected to be low and moderate, respectively (p. 20-7):

- Habitat quantity and fragmentation
- Habitat quality
- Relative abundance and distribution of caribou
- Survival and reproduction
- Access to caribou
- Availability of caribou#

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The DAR presented relative (predicted) effects of spring conditions and encounters with human development as the basis for predicted impacts of the NICO Mine (Table 8.5-10; p. 8-87), and proposed a perspective (citing Bergerud et al. 2008), that a fall calf:cow ratio of about 0.30 is associated with stable caribou herds under sustainable harvest levels. This is assumption is questionable given the current low population size and rapidly declining trend of the Bathurst herd.

The assumptions used in the DAR to arrive at conclusions on direction and magnitude of impacts to Bathurst caribou do not reflect the current and serious harvest management measures that have been developed recently by the TłįchQ Government and Government of the Northwest Territories (Revised Joint Proposal on Caribou Management Actions in Wek'éezhì, and associated Implementation Plan www.wrrb.ca), nor does it reflect the similar work and agreement on caribou harvest management undertaken by the Yellowknives Dene First Nation and the GNWT.

As the current emphasis of co-management is to reverse the declining trend and promote recovery of the herd through harvest restrictions and enhanced predator harvest through community-based hunters, any incremental reduction in calf productivity (i.e., cow: calf ratios) caused/associated with mining construction and operations may increase the time for recovery. It is important to recognize, that construction, operation and closure of the mine coincides with the need to recover the Bathurst herd over the next decade or more, therefore additional and cumulative reductions in herd productivity may have disproportionally large effects on potential herd recovery rates.

- 11.1 Given the current context of a low and rapidly declining herd, please provide a re-evaluation of the potential impact of mine development, operation, and closure of the NICO Mine, on the potential for recovery of the Bathurst herd and associated harvest levels.
- 11.2 Please identify how the developer will include the TłįchQ Government in any re-evaluation of the potential impacts of the mine on barrenground caribou.

Source: TłįchQ Government **To:** Fortune Minerals Limited **Subject: Boreal Caribou**

DAR Section: 8 (KLI – Caribou)
Terms of Reference Section: n/a

Preamble:

The DAR recognizes that: "The Boreal ecotype of woodland caribou is listed as 'sensitive' in the NWT (ENR 2010a) and 'threatened' by COSEWIC (2009) and SARA (2009). The Northern Mountain ecotype is 'of special concern' territorially and federally (COSEWIC 2009; SARA 2009; ENR 2010a)."

Fortune Minerals provides the following rationale for not considering the potential impacts of the NICO mine and associated roads for boreal caribou (page 8-8).

"For woodland caribou, the RSA is within the range identified for the NWT North Slave woodland caribou population (ENR 2009a). However, John Mantla (Behchokö, 2003, pers comm.) indicated that he knew of no traditional hunting of woodland caribou in the area, and believed that they were not commonly present in the study area. Traditional knowledge indicates that woodland caribou tend to be more common to the west of the RSA, beyond the community of Whatì (Dogrib Treaty 11 Council 2001)."

The DAR also states that:

"The population estimate of woodland caribou in the NWT was between 4000 and 6400 in 2001 (ENR 2009a). The population estimate of the North Slave population of woodland caribou, which occupy the area surrounding the NICO Project, was 700 individuals in 2005 (Government of Canada 2009, internet site). This population estimate was derived from numbers of collared animals in other areas of the NWT, thus the current population trend of the North Slave population is unknown." (p. 8-25)

Boreal caribou are considered generally as a 'species at risk' at a territorial and national level (although the specific designations vary), and there has been a recent release of a draft National Recovery Strategy for boreal caribou (EC 2011) as well as other relevant research (see list below), which suggests that boreal caribou management be conducted at the range scale through application of disturbancemanagement thresholds.

Environment Canada. 2011. Recovery strategy for the woodland caribou (Rangifer tarandus caribou), boreal population, in Canada [Proposed]. Species at Risk Act Recovery Strategy Series. Environment Canada, Ottawa. vi + 55 pp.

Nagy, J. 2011. Use of space by caribou in northern Canada. Unpublished PhD Thesis. University of Alberta, Edmonton, AB. 164 pp.

Schneider, R. R., G. Hauer, W. L. Adarnowicz, and S. Boutin. 2010. Triage for conserving populations of threatened species: the case of woodland caribou in Alberta. Biological Conservation 143:1603-1611.

The TłįchQ Government's review of the DAR found a lack of information on woodland caribou, whose habitat is in the boreal forest of the NWT including the area surrounding the mine. Missing is extensive traditional knowledge that assists in understanding more fully the TłįchQ use of woodland caribou and baseline information about woodland caribou distribution, abundance, population dynamics, response to disturbances and other stressors, etc.

- 12.1 Please reconsider the dismissal of boreal caribou in the DAR, and provide an overview of potential impacts and associated mitigation strategies the developer proposes to undertake with respect to boreal caribou if encountered in the vicinity of the NICO mine.
- 12.2 Given the lack of scientific information on woodland caribou provided in the DAR, what additional scientific studies need to be completed to ensure Fortune is aware of the possible presence of and impacts on this species at risk?

Source: Tłįcho Government **To:** Fortune Minerals Limited

Subject: Cumulative effects for Bathurst caribou

DAR Section: 8.1, Table 8.1-1, Page 8-3 and 8-4

Terms of Reference Section: Appendix L, Section 3.6

Preamble:

Section of the ToR 3.6 states "Pursuant to paragraph 117(2)(a) of the Mackenzie Valley Resource Management Act, the Review Board considers cumulative effects in its determinations. Cumulative effects are the combined effects of the development in combination with other past, present or reasonably foreseeable future developments and human activities."

Appendix L of the ToR states: "The following items are required for consideration of cumulative effects:

1) In terms of cumulative effects, predict: a. potential impacts of the NICO Project on the Bathurst caribou herd in combination with impacts of other developments in the range of the Bathurst caribou herd".

A meaningful assessment of cumulative effects to migratory barren-ground caribou must be scaled up to the population and therefore requires an assessment of natural and anthropogenic disturbances at the spatial scale of a herd's annual range.

Request:

13.1 Please re-evaluate the cumulative effect of the NICO Mine at the annual range scale of the Bathurst herd, rather than a geographic scope that is focused on just the winter range distribution in the Northwest Territories.

Source: Tłįchǫ Government **To:** Fortune Minerals Limited

Subject: Socio-economic Impact Assessment – General

DAR Section: 6.3.2 (Temporal Boundaries); 2.2

Terms of Reference Section: n/a

Preamble:

The developer does not include any reference in temporal boundaries of assessment to changes that may occur in the socio-economic environment prior to the beginning of construction at the mine. This is a relevant consideration, as noted in the Review Board's 2007 *Socio-economic Impact Assessment Guidelines*.

- 14.1 Please identify why pre-construction socio-economic impacts not included in the DAR's considerations.
- 14.2 Please provide information on what socio-economic impacts may occur prior to the beginning of construction, and what conditions might contribute to these development-related changes.
- 14.3 Please provide a copy of the socio-economic portion of the Golder/Fortune TK Study's questions.

Source: Tłįchǫ Government **To:** Fortune Minerals Limited

Subject: History of Maximizing Tlicho Employees

DAR Section: 4.2.1

Terms of Reference Section: n/a

Preamble:

The developer states that it has a history of "employing as many local people as possible on-site in the exploration program and related environmental baseline work while conferring the benefit of this employment and training to the local population".

- 15.1 Please provide a record of:
 - 15.1.1 The number of Tłicho citizens hired to work onsite in the exploration program and related environmental work,
 - 15.1.2 What positions these Tłicho citizens filled, and
 - 15.1.3 What percentage of total jobs were filled by Tłicho citizens during these early stages of the mine life cycle.
- 15.2 Please identify any factors that constrained Fortune from hiring even more Tłicho citizens during exploration and baseline data collection, and any efforts made by the developer to mitigate them.

Source: The Government **To:** Fortune Minerals Limited

Subject: Employment Opportunities and Hurdles for Theho Citizens

DAR Section: 2.2, 2.3.5, 3.12.2.2 Terms of Reference Section: n/a

Preamble:

In section 2.2 of the DAR, Fortune states "The NICO Project will have a positive effect on employment and business levels, as well as labour income. It will increase local and regional employment, including up to 231 annual Full Time Equivalents (FTE's) during construction, up to 233 annual FTEs during the underground and Open Pit mining phase of operations, and up to 127 annual FTEs for the rest of the operations."

In section 2.3.5 of the DAR, Fortune states "The labour requirements for the mine and concentrator, as well as additional personnel required to transport concentrates south can be easily sourced from the existing labour pool in the NWT."

Section 3.12.2.2 states "Most operations jobs for the NICO Project will have minimum education requirements, including high school completion (or a General Equivalency Diploma)". Given graduation rates among Thicho citizens are lower than those for the Yellowknife labour pool, this requirement may fundamentally constrain the number of Thicho citizens able to work for the project.

- 16.1 How many of the above-noted jobs might reasonably be expected to be filled by Tłicho citizens?

 16.1.1 How was this prediction arrived at?
- 16.2 What are factors constraining Theho citizens' employability at the mine during construction and operations?
- 16.3 Please identify what commitments, plans or policies Fortune has to proactively assist in the removal of barriers to maximizing Thcho citizens' employment in its NICO mine site.
- 16.4 Does Fortune have any targets for Thcho hiring? If not, please identify why, especially in light of the assertion made that labour requirements for the mine and concentrator can "easily be sourced from the existing NWT labour pool".
- 16.5 Has Fortune entered into any dialogue with the Thcho Government or its representatives about hurdles experienced by the Thcho in recruitment, retention and advancement in the diamond mining sector in the NWT?
- 16.6 Has Fortune held discussions with the other mining companies in the region to understand current hurdles to hiring, the labour pool, and the difficulties experienced with hiring in the current economic climate?

- 16.7 Describe any lessons learned from the Thoho Government or the mining sector that Fortune is incorporating into project planning for the NICO mine.
- 16.8 How did the developer determine that labour requirements for the mine and concentrator can "easily be sourced from the existing NWT labour pool".
- 16.8 What percentage of staffing may be "easily sourced" from the Thcho region?
- 16.9 Why is high school graduation considered a minimum requirement for what appears to be every job available at the mine site?
 - 16.9.1Has the company considered doing competency assessments and considering work experience in place of requiring grade 12 educations for Tłicho citizens or Aboriginal workers in general?

Source: Theho Government **To:** Fortune Minerals Limited

Subject: General Employment Issues

DAR Sections: 3.13.3, 3.13.6 Terms of Reference Section: n/a

Preamble:

The Thoho Government and its citizens have faced issues related to the mining sector not only in recruitment, but also retention and advancement. For example, the custom care model in Thoho communities means that often young people are placed with family members to be raised by aunts, uncles, or other extended relatives. This means that policies that are adopted by mining companies that allow people only to leave for direct kin bereavement are not appropriate to the Thoho region.

The DAR identifies fairly standard industry-designed measures to reduce stress at long-distance commuting mines. The measures that tend to provide the most comfort to Thoho people are to have elders, harvesters, family and leaders visit them.

- 17.1 What bereavement leave for Aboriginal workers is being considered to accommodate custom adoption and extended family bereavement?
- 17.2 Section 3.13.6 states that "Fortune is committed to providing opportunities for career advancement for employees hired for the NICO Project, as well as providing opportunities for Aboriginal workers." What specific measures will be adopted to ensure that there is career advancement?
- 17.3 Given the proximity to the communities, what policies (if any) will be in place to allow visits by family and elders without undue security authorization being required?
- 17.4 What measures will be in place for counselling to be done in traditional ways?
- 17.5 What measures will be in place to allow for healing, grieving and prayer in ways that are considered appropriate?
- 17.6 The company suggests that exit interviews will be done to understand why workers are leaving. What measures are being considered to ensure that the Tłicho Government is involved in planning for use of these results?
- 17.7 What sort of grievance mechanism for Thicho workers is being considered, or has been committed to, by the developer, for example to ensure that people are not wrongfully dismissed for reasons related to cultural misunderstandings?

Source: The ho Government **To:** Fortune Minerals Limited

Subject:

Socio-economic Effects on the Thcho Government

DAR Section: 16.2.11.2.2 (Impact to Total Economic Activity)

Terms of Reference Section: n/a

Preamble:

Under the *Thcho Agreement*, citizens living in communities are taxed, and these taxes are returned to the *Thcho* Government. If employees are *Thcho* citizens, the *Thcho* Government can anticipate new taxation dollars for the life of the mine.

- 18.1 Please provide analysis of the tax revenue implications to the Thoho Government of this proposed development.
- 18.2 Please describe all costs is it anticipated the Thcho Government will bear for infrastructure, education or other ancillary developments to support this proposed development.

Source: Theho Government **To:** Fortune Minerals Limited

Subject: Shift Scheduling during Construction and Operations

DAR Section: 2.3.1, 3.13.2.1 (Construction)

Terms of Reference Section: n/a

Preamble:

In section 2.3.1 of the DAR, Fortune states that "The proximity of the NICO Project to the TłįchQ communities provides an opportunity for more attractive work schedules than the more distant diamond mines."

In Section 3.2 of the DAR, Fortune identifies the shift schedule during operations as follows: "The main workforce rotation will consist of 4 crews working a staggered 12-hour shift, in a 2 weeks on and 2 weeks off rotation, or some variation that provides continuous coverage."

Contrastingly, the DAR suggests the construction workforce will work for four weeks on and two weeks off.

- 19.1 Please identify all other alternative shift schedules considered by Fortune, their strengths and weaknesses, and why the construction shift schedule was chosen.
 - 19.1.1What percentage of the construction phase workforce is predicted to be from the Thcho communities?
 - 19.1.2Was input sought from the Thcho Government or Thcho citizens, communities or businesses on the construction phase shift rotation?
 - 19.1. 3 Has there been any consideration of how this kind of shift schedule might impact on worker's families in Thicho communities?
- 19.2 What case study evidence, if any, of the effects of different operations stage rotational schedule were reviewed before identifying the preferred shift rotation option?
- 19.3 In light of the proximity of the mine to Thicho and Gameti, commitments made by the developer to transportation of workers to and from the mine site and their home communities, and the stated requirement for an all-season road to be in place at least to Whati for the project to proceed, has the developer considered alternative work schedules combined with daily or weekly bus commuting that might alleviate pressures on families associated with some fly-in, fly-out operations? What are the pros and cons of options considered?
- 19.4 Please identify any plans Fortune has to review its proposed shift schedule with the Thoho Government against other options and flexible variations?

Source: Theho Government **To:** Fortune Minerals Limited

Subject: Commuting and other Worker Transportation Issues

DAR Section: 3.13.7 (Transportation) Terms of Reference Section: n/a

Preamble:

The DAR states that "Fortune will provide scheduled return bus transportation during all phases of the NICO Project, at its expense, to employees travelling from designated pick-up location at the 3 TłįchQ communities (Behchokö, Whatì, and Gamètì). A 22 person bus will travel between the TłįchQ communities bringing workers in and out of Camp. A bus will go to Whatì every day to bring people and/or food in and bring people out. Small aircraft will be used to transport employees to and from Wekweètì. Transportation will also be provided for Yellowknife residents. Fortune may re-evaluate the logistics to make adjustments to best suit the workforce during construction and operations of the NICO Project."

Requests:

20.1 Will all transportation options identified be provided free of charge, including Yellowknife transport?

20.1What is the distance and estimated travel time for the workers on bus from each of the three noted Tlicho communities?

20.3 It is unclear whether Whati resident workers at the mine will be transported to and from home every day or not. Please clarify.

20.3.1 If Whati-based workers are not being transported to and from work every day, please provide a rationale for why not and identify potential impacts on families and proposed mitigations.

20.3.2 If Whati-based workers are being transported to and from work every day or on a schedule shorter than two weeks in-two weeks out, please discuss whether there may be in-migration effects to the community of Whati from Gameti and Wekweeti, and potential beneficial and adverse impact outcomes

20.4 What is Fortune's policy toward workers who would like to self-commute to and from the mine site?

20.4.1 What will the site parking policy be and how many spots will be made available?

Source: Theho Government **To:** Fortune Minerals Limited

Subject: Temporary Accommodation Issues

DAR Section: 3.3

Terms of Reference Section: n/a

Preamble:

Section 3.3.1.3.1 identifies there may be a need for temporary accommodations in Whati during project construction.

- 21.1 What is the maximum number of workers who many need to be "temporarily accommodated" in Whati and for what maximum length of time?
- 21.2 Have any discussions been held with Whati about temporary accommodations in their community during construction and if so, what concerns have been raised?
- 21.3 What are the potential impacts to Whati residents and the developer's plans for mitigation, if any?
- 21.4 How will the community of Whati and Tłicho Government be involved in any decision on whether to allow temporary accommodations for workers to be in the community?
- 21.5 What alternatives were or are being considered to temporarily accommodating construction workers in Whati? What criteria were/are being used to make decisions on the best alternative?

Source: Tlicho Government **To:** Fortune Minerals Limited **Subject:** Closure and Reclamation

DAR Section: 3.14, Section 9 (KLI – Closure and Reclamation), Table 9.1-2

Terms of Reference Section: 3.3.3

Preamble:

The Terms of Reference call for policies, regulations and industry standards that Fortune considered in development the conceptual closure and reclamation plan. The Terms of Reference also call for evidence of community engagement in closure criteria and indicators.

Section 3.14.2 of the DAR identifies closure objectives to include the protection of indigenous values. It is unclear to this point how Fortune has engaged with the Thoho in the identification, prioritization, or planned protection of Thoho values.

Table 9.1-2 discusses the valued components, assessment and measurement endpoints associated with closure and reclamation planning. In the section on people, there components are considered (access and availability of fish, traditional plants, and wildlife, and human health). Another key element for closure success consists in working with communities to develop closure plans and strategies to mitigate the socio-economic impacts of mine closure and to help develop long-term economic development plans. For example, a key component of closure planning should be the re-training of mine force workers to pursue alternative or parallel career opportunities post-closure.

- 22.1 Please describe what policies, regulations and standards have been drawn on to this point in developing the conceptual closure and reclamation plan.
 - 22.1.1 Specifically, has the developer considered the following guidance documents as tools for best practice, and if not (for any of them) please provide reasons why:
 - o International Council on Mining & Metals (ICMM). (No date). Planning for Integrated Mine Closure.
 - Cowan, Mackasey & Robertson. (2010). The policy framework in Canada for mine closure and management of long-term liabilities: A guidance document prepared for National Orphaned/Abandoned Mines Initiative (NOAMI).
- 22.1 What has the company done to engage the Thicho Government in the discussion of closure?
- 22.2 What is the company committed to doing to involve Thato Government and citizens in closure and reclamation planning and implementation from this point forward?
- 22.3 How was traditional knowledge included in the development of the conceptual closure and reclamation plan for the mine to this point?

- 23.4 What is the company committed to doing to incorporating That traditional knowledge input into closure and reclamation planning and implementation from this point forward?
- 23.5 Please identify all "indigenous values" the developer has thus far identified that it seeks to protect through its Closure and Reclamation Plan, and the means and parties by which they have been identified.
- 23.6 Has the developer sought Thcho Government input in the development of conceptual levels end land use objectives to this point in time? If not, please identify when this is planned to occur and why efforts have not started yet.
- 23.7 What commitments has/does the developer make to preferentially involve Thcho citizens and the Thcho Government in environmental monitoring?
- 23.8 How will the Thoho Government be consulted about materials, machinery and other construction materials that might be useful to the communities, prior to a determination being made on their fate?
- 23.9 Regular updating of mine closure plans has been shown to be vital to developing workable solutions.
 - 23.9.1What are the plans or commitments of the developer for timing of closure and reclamation updates and reporting to the Thcho Government and communities?

 23.9.2 Does the developer plan to have funding, plain language materials and other resources available to facility community engagement in closure planning?
- 24.1 Did the developer consider socio-economic endpoints in its preliminary Closure and Reclamation Plan?
- 24.2 How will the developer work respectfully with the communities to develop strategies and plans for workforce transition before, during and after closure?
- 24.3 Section 9.4.2.2 of the DAR states that "Specific recommendations as to the standards and methods for reclamation were rarely discussed or brought forward [by community members]." Please identify any instances where communities were asked to identify specific recommendations as to the standards and methods for reclamation.
- 24.4 Section 9.4.4.2 refers to progressive reclamation ongoing from early in the mine's operating phase. 24.4.1 Will monitoring for compliance, success and environmental impact occur on areas
 - subjected to progressive reclamation? By whom?
 - 24.4.2 How will the results of progressive reclamation be reported, to whom, at what intervals, and with what feedback mechanisms?

Source: Thcho Government **To:** Fortune Minerals Limited

Subject: Long-term Closure Management

DAR Section: 3.14.5

Terms of Reference Section: n/a

Preamble:

Table 3.14-2 includes reference to detailed and potentially costly activities (building a winter road, developing Wetland Treatment System #4) that the developer predicts would begin 118 years after the mine site closes.

- 25.1 Please identify what the developer predicts the year by year and sum total long-term care and maintenance costs will be for the closure period up until the time it is predicted that no monitoring is required.
- 25.2 What assurances can the developer provide that it will be financially able to bear the costs of site maintenance 118 years or more into the future?

Source: Tłicho Government To: Fortune Minerals Limited Subject: Re-vegetation

DAR Section: 3.14.11.2

Terms of Reference Section: n/a

Preamble:

At page 3-101 of the DAR, it is stated that "Fortune will study the feasibility and applicability of using various plant species and planting or site preparation techniques as part of their revegetation program; however, the current revegetation management objective will be to create a stable and favourable landscape that will encourage natural colonization, and encroachment and regeneration of endemic plant species. This will be complemented by planting or seeding where required."

Request:

26.1 Please identify any scientific or traditional knowledge about results of revegetation at other mines in the Tłicho Region considered in development of plans for revegetation.

26.1.1 If any have been reviewed, please identify "lessons learned" that will be incorporated into revegetation planning at NICO.

26.1.2 If none have been reviewed, please clarify why these relevant case studies have not been considered.

26.2 On what basis does the developer suggest that passive (little or no planting) vs. active re-vegetation is the most appropriate management activity?

26.2.1 Does this strategy have implications for the amount of dust moving around and off the site over time?

Source: Theho Government
To: Fortune Minerals Limited

Subject: Co-mingling of Tailings and Waste Rock; Management of Co-Disposal Facility

DAR Sections: 2.3.3, 2.3.4 (Tailings and Mine Rock Disposal Options), 3.3.1.3.1, 3.7.2.1 (Quantity and

Distribution of Mine Rock), 9.4.1.3.3 (Co-Disposal Facility Covers)

Terms of Reference Section: 3.2.5

Preamble:

Section 3.2.5 of the Terms of Reference states "Where applicable, the developer will provide reference to research that identifies the successful use of the specific technologies being proposed, and their relevance for this environmental setting".

The DAR identifies co-mingling of tailings and waste rock as the preferred mined materials storage and management system.

In addition, Section 2.3.3 of the DAR states that "Fortune commissioned a site selection study for conventional slurry tailings and mine rock disposal in 2004 (Golder 2004). Eleven candidate sites were selected for review within a 5 kilometre (km) radius of the ore body. Of these, 3 sites were selected for further evaluation, which was then reduced to 2 sites based primarily on environmental considerations."

In section 2.3.4, the developer notes co-disposal would require relatively low capital costs but high operational costs, and operation would require substantial controls and a well trained workforce.

In section 2.3.4.1, it is estimated that the footprint of the NICO Project will be reduced by over 200 hectares based on a prediction that about 35.5% of the thickened tailings being "anticipated to fill the void space of the mine rock".

- 27.1 Please provide reference to research that identifies the successful use of co-mingling in other mines in the circumpolar North and whether this technology has ever been used in the NWT or like environments and outcomes to date of any relevant comparable disposal/management systems.
- 27.2 Please show the efforts made to learn about the operational controls used in other sites, as well as what accidents and risks have been encountered in other co-disposal facilities.
- 27.3 Please discuss how or whether this option (co-disposal) has proven to be a lesser geochemical risk at other existing operations than other options considered.
- 27.4 Given the traditional and local environmental knowledge of area land users, was representation sought from the Thcho Government or Thcho citizens in the identification and review of the eleven candidate sites for tailings and mine rock disposal?
 - 27.4.1 Were the eleven candidate sites ever presented to the Thcho Government or any of its representatives prior to the decision-making process?
 - 27.4.2 Please identify whether and when the developer intends to have the two sites being considered for co-disposal toured by Tlicho Government representatives.

- 27.5 What is the basis for the estimate that 35.5% of the thickened tailings will enter the void space in the mine rock?
 - 27.5.1 Is this based on research in a sub-arctic environment?
 - 27.5.2 Are there environmental issues that may reduce the amount of thickened tailings that enters the void space?
- 27.6 Please identify what type/category of rock was used in the co-disposal test blocks that were created in July of 2011?
- 27.7 Section 9.4.1.3.3 states that a program will be undertaken to optimize the design of the CDF covers. Please provide a more in-depth description of the planned program, including what plans will be made to test the CDF for stability and long term viability in the environment.
- 27.8 Please identify whether and how Fortune envisions the Thcho people will be involved in the determination of the vegetation cover for the CDF, and any associated commitments.

Source: The ho Government **To:** Fortune Minerals Limited

Subject: Wastewater management

DAR Section: 3.14. 7.0 (KLI – Water Quality)

Terms of Reference Section: n/a

Preamble:

In section 3.14.5, the developer identifies that the construction and testing of the wetlands management system will not be put in place until the 17th year of operations.

Request:

28.1 Please provide more details as to why the developer selected reverse osmosis as the water treatment method, including more description of the background data and science that led the developer to believe this would be the most successful treatment.

28.2 How long will it take to determine the effectiveness of the wetland management system for long term management with a high degree of certainty?

28.3 Please identify why the wetlands management system is not being developed earlier in the life of the mine, when manpower, equipment and time are readily available in case the system does not work as planned.

Source: Theho Government **To:** Fortune Minerals Limited

Subject: Acid Rock Drainage and Metals Leaching Potential

DAR Section: 3.3.1.4, 3.3.1.5, 3.4.2.2 Terms of Reference Section: n/a

Preamble:

In section 3.3.1.5 of the DAR, the developer states "Pre-production mining are the activities related to the targeted mining of rock from the Open Pit to be used for construction to limit the amount of borrow pit material required. This rock (approximately 400 000 cubic metres [m3]) excavated during this phase will be used to construct site roads, Plant and Camp site fill, and CDF components such as water retention dykes and the perimeter dyke.

In section 3.4.2.2, it is stated that "According to the results of geochemical characterization of ore, the ore has a high potential for acid generation and metal leaching if not handled appropriately."

Any potential ARD or metals leaching causes serious concerns for the Thcho Government and its citizens.

- 29.1 What type of rock will be placed outside of containment? What is the predicted ARD and metals leaching potential of this 400,000 m3 and how was this determined?
- 29.2 Given the potential for Type 2 rock to be acid bearing, why is it proposed for use on site for construction purposes? Are any other alternative rock sources that present a lower risk of ARD or metals leaching available for construction purposes?
- 29.3 The discussion in section 3.4.2.2 suggests visual inspection of uncovered rockpiles will be sufficient to make an assessment that the stockpile of ore in the mineral processing plant will not generate acids. Please provide a rationale for why visual inspection is sufficient to ensure acid rock generation is not a risk.

Source: Thicho Government **To:** Fortune Minerals Limited

Subject: Effluent Treatment Facility

DAR Section: 2.3.3.1

Terms of Reference Section: n/a

Preamble:

In section 2.3.3.1 of the DAR, Fortune identifies that "the cost of operating the Effluent Treatment Facility (ETF) is substantial, and a function of water volumes and solute concentrations".

Request:

30.1 Please provide estimates of the cost of maintaining the Effluent Treatment Facility for a year and the range of expected variation depending on potential expected fluctuations in water volumes and solute concentrations.

Source: Theho Government **To:** Fortune Minerals Limited

Subject: Air Quality

DAR Section: Plain Language Summary (section 5.2), 10.4.2.1.3 Greenhouse Gas Emission Estimations,

Table 10.4-9

Terms of Reference Section: n/a

Preamble:

The DAR identifies that "The amount of some metals in water resulting from mine dust was identified as potentially being above water quality guidelines in some small lakes and ponds". It also states that eight 1450 kilowatts (kW) power generators are expected to operate 24 hours per day during the operations phase, accounting for approximately 68% of the total annual greenhouse gas emissions.

The DAR provides reference to modelling that predicts exceedences of the NWT Air Quality Standards for NO2, PM2.5 and TSP in some areas. Indeed, concentrations of PM2.5 and TSP are among the very few impact causing agents listed as even "moderate" by the developer in its significance estimation (Table 10.7-1).

Windborne dust and deposition of metals in soil, plants and wildlife is of high concern to Theho citizens, especially harvesters.

- 31.1 What lessons learned from other mines in similar environments to control dust were considered by Fortune? Which of these mitigation measures are committed to by Fortune for this mine?
- 31.2 In the developer's opinion, what is the potential for seasonal "flushing" of metal laden dust into area waterways during spring freshet as dust laden snow melts, and what are potential impact outcomes on the receiving environment? Has this possibility been included in the developer's modeling and impact predictions, and how?
- 31.3 What alternative energy generation technologies have been considered for use at NICO whether as a replacement or complement to diesel generation? Please provide analysis of the pros and cons of each technology versus diesel generation.
- 31.4 In section 16.4.2.3, the developer suggests that mitigation measures will be used to reduce dust in the summer. What specific mitigation measures are being considered?
- 31.5 Will TSP and PM2.5 particles be accumulating on the ground in certain areas over time? If so, will they require active management and using what methods?
- 31.6 What steps will the developer take to make sure Thcho travellers on the land are aware of any air quality issues outside the mine lease area?

- 31.7 What sort of reporting of air quality monitoring will be provided to the Tłicho Government?
- 31.8 What commitments does the developer make to having Thoho citizens involved in air quality monitoring?
- 31.9 What adaptive management steps would be taken in cases where there are air quality parameter exceedences that extend beyond the mine site? At what point would these steps be taken and at what point would they no longer be required?
- 31.10 What sort of prevention mechanisms and health monitoring of workers will occur to minimize long-term health risks from working at the mine site?
- 31.11 It is not intuitively evident why 24-hour PM2.5 concentration, 24-hour TSP concentration, and annual TSP concentration, though listed as having a high cumulative magnitude, have only a moderate significance rating, rather than a high significance rating. The developer states that these concentrations are "reversible", because "once mine emissions cease, the air quality effects due to air emissions from the NICO Project will stop immediately; therefore, even though some of the magnitude ratings are high, they are, on their own, not sufficient to result in a high significance rating" (section 10.7.2).
 - 31.11.1 Is there a requirement that a impact be an extremely long-term high magnitude impact before it is deemed significant? Are local and medium-term (say 20 years) impacts automatically low, moderate or insignificant under the assessment method utilized by the developer? 31.11.2 Would it not be more reasonable to state that these concentrations will create a significant adverse impact for the life of the mine?
 - 31.11.3 Most importantly, what proactive mitigation measures will the developer adopt to ensure that this impact, which from all appearances will have significant local effects over at least a 20 year span, will be reduced to acceptable levels?