YELLOWKNIVES DENE FIRST NATION

INTERVENTION

Mackenzie Valley Environmental Impact Review Board EA1819—01 Depositing Processed Kimberlite in Pits and Underground

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1. WHO WE ARE

- An aboriginal and treaty rights bearing people in NT (Section 35 of Constitution Act, 1982)

- Aproximately 1500 members who primarily reside in the communities of Ndilo, Dettah and Yellowknife, Northwest Territories

- Descendants of Tetsǫ́t'ıné ("copper or metal people"), the indigenous Chipewyan-related people living around Great Slave Lake and referred to in exploration and fur trade records as Copper Indians, Yellow-knife Indians, Red-Knife Indians

1. WHO WE ARE

- The Yellowknives Dene are the indigenous people who have always used and occupied the lands and waters around Weledeh-Cheh (Yellowknife River and Bay), north to the Barrenlands. This traditional territory is referred to as the Chief Drygeese Territory in the modern administration. This territory represents the key areas through which the people hunted, fished and trapped for time immemorial

2. CULTURAL SIGNIFICANCE & USE

- Historically and traditionally Yellowknives Dene spent most of each year in the open spaces of the barrens north of the Treeline.

- The traditional territory of these people and their T'satsaot'ine relatives extended from what is now called Great Slave Lake to the Coppermine River and, on rare occasions, as far as the Arctic coast.

- The Plants, birds, fish, and animals were sustenance to the people.

2. CULTURAL SIGNIFICANCE & USE

- Hunting, Trapping and Harvesting

- The People's Birth & Burial Places

- The People's Use of their Land (Barren Lands)

3. WATER QUALITY(MODELLING)

- **DEVELOPERS VIEW**

- The model did not incorporate groundwater inflow

- A change in the size of the areas where the dike is breached was not predicted to affect the surface water quality in the pit lake

- A water cap of approximately 50m depth was necessary to isolate the PK porewater from the surface and facilitate the stratification

3. WATER QUALITY

- **YKDFN VIEW**

- Water quality is most significant Valued Component (VC)

- Water quality should be as close as possible water quality at mine genesis

- Water contamination where the people currently live has heightened sensitivity to water quality issues around mines and their potential for environmental harm

4. EXCLUSION OF PIT A21 (# OF PITS TO BE USED)

- **DEVELOPERS VIEW**

- Assessing the suitability of three (3) separate mined out kimberlite pits (A418, A21 and A154) deposit

- Diffusion more quickly into Lac de Gras than the other pits

- meromixis will breakdown in 50 years (100 years expected for the other pits A418 and A154.)

- A21 is included in the event it becomes available for deposition earlier than A418 and A154

4. EXCLUSION OF PIT A21 (# OF PITS TO BE USED)

- **YKDFN POSITION**

- Only one pit required for EPK storage for the estimated waste to be produced for the remaining life of mine.

- **YKDFN RECOMMENDATION**

- Pit A21 should not be considered by the board as a viable option for PK deposition in any of the developers highlighted Scenarios.

5. FISH & AQUATIC LIFE

- **DEVELOPERS VIEW**

- Fish will only be allowed access to the lake once stratification has been achieved and water quality in the top 40 m has been shown to meet established benchmarks

- Fish are not expected to go below 40 m A21 is included in the event it becomes available for deposition earlier than A418 and A154

- Exclusion of fish from pit lakes at closure is expected to have an insignificant effect on fish populations

5. FISH & AQUATIC LIFE

- **YKDFN POSITION**

- Proponent does not explain with enough justification why the depth of 40 m has been chosen as the zone in which water quality should be a concern. (E.g. Lake trout are known to retreat to the colder water of the hypolimnion during warm summer months this represents the lowest levels of a stratified lake)

- Why stratification of the pit lakes is the answer to potential water quality impacts to fish.

6. RECONNECTION TO LAC DE GRAS

- **DEVELOPERS VIEW**

- Once criteria are met and indicators are below established thresholds the pit lake will be reconnected to Lac de Gras.

- Exclusion of fish from pit lakes at closure is expected to have an insignificant effect on fish populations

- Isolation scenario refers to the isolation of fish form the lake in the event water quality was reduced and not suitable for aquatic life

6. RECONNECTION TO LAC DE GRAS

- **YKDFN VIEW**

- Water quality is of paramount importance to this undertaking due to knock on implications.

- If conditions escalate to a point where fish need be excluded from a pit lake after dam has been breached, we also believe that this would be detrimental to the water quality in the wider Lac de Gras

- Even in the absence of such poor water quality for fish, this will certainly affect our members perception adversely.

6. RECONNECTION TO LAC DE GRAS

- **YKDFN RECOMMENDATION**

- Leave the lake isolated to so it forms it own self-contained lake

- Ensure monitoring procedures and protocol are collaboratively developed with indigenous community

- Development of contingencies in the event of a dam structure breach

6. RECONNECTION TO LAC DE GRAS

- **YKDFN RECOMMENDATION cont'd**

- Even in the absence of such poor water quality for fish, this will certainly affect our members perception adversely.

- If the decision is to reconnect, we would be in favor of the establishment or assessment of traditional or indigenous knowledge as considered criteria

7. CLOSURE OBJECTIVES & MONITORING

- **YKDFN POSTION**

- A decision in favour of deposition will lead to the adjustment of closure objectives

- Additionally, the closure plan is a primary instrument in effectively monitoring and mitigating the long-term effects of the mining activity Development of contingencies in the event of a dam structure breach

7. CLOSURE OBJECTIVES & MONITORING

- **YKDFN RECOMMENDATION**

- closure objectives be collaboratively developed among the indigenous groups and the developer.

- Notwithstanding the existence and of the current Diavik TK panel, the collaborative effort should go beyond those confines and develop key performance indicators with the local indigenous communities

- Emphasis should be placed on indigenous youth involvement

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