

# DDMI Traditional Knowledge Panel Session #13

## VEGETATION WATCHING AND MONITORING FOR CLOSURE (V4.0)

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Community-Based Monitoring Camp near Diavik Diamond Mine, NT  
August 6-8, 2021



Joanne Barnaby Consulting



## Disclaimers

This document does not represent the results of community consultation. It is subject to the “No Prejudice” clauses of Article II, Section 2.1 of the *Environmental Agreement for the Diavik Diamond Project*. The document represents the work of the Traditional Knowledge (TK) Panel participants and does not necessarily reflect the views of any Party to the *Environmental Agreement*.

Since 2011, the Traditional Knowledge (TK) Panel has guided Diavik Diamond Mines (2012) Inc. (DDMI) through EMAB and then Diavik as an independent body consisting of representatives from the Kitikmeot Inuit Association (Kitikmeot Inuit Association / KIA), Łutsel K’e Dene First Nations (LKDFN), North Slave Métis Alliance (North Slave Métis Alliance / NSMA), Tłı̨chǫ Government (Tłı̨chǫ Government / TG), and Yellowknives Dene First Nation (YKDFN). With the support of DDMI and the TK Panel, Thorpe Consulting Services and Joanne Barnaby Consulting facilitated these sessions from 2012 through 2022. In early 2022, DDMI selected Ausenco and Det’on Cho Environmental as new facilitators for the TK Panel. Accordingly, Thorpe Consulting Services and Joanne Barnaby Consulting were not able to participate in the final verification of this report in-person with TK Panel members in June 2022, but were asked to finalize this report nevertheless. As with all TK Panel reports, this is a living document.

## Suggested Citation:

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**Cover Photo:** TK Panel participants study vegetation at the Community Based Monitoring Camp on Lac de Gras in August, 2021. Photo by Sarah Ravensbergen.



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**Watching vegetation on the land always includes picking berries!**

# Executive Summary

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The thirteenth session of the Traditional Knowledge (TK) Panel was held August 6-8, 2021, at the Diavik Community-based Monitoring (CBM) TK Camp on Lac de Gras. While much of this work is often referred to as “monitoring” community members more commonly use the term “watching.” During this session, participants watched, shared and discussed their broader visions around the land, with a focus on vegetation.

The TK Panel discussed priorities for watching vegetation and monitoring for closure and post-closure activities. The Panel held group discussions and field trips to watch and touch vegetation, and to explore whether community members feel the land and vegetation are healthy. They shared how they know whether the land is healthy, and how current and future watching of vegetation should proceed. Panel members developed several guidance points (related to watching, ways of knowing, and communication) and 13 formal recommendations related to ongoing initiatives to watch vegetation.

Guidance points:

- Traditional practices and protocols when out on the land watching vegetation should be respected in future programs and sessions;
- Both youth and Elders should work together in future watching;
- Climate change should be a consideration for all discussion / planning of watching programs going forward;
- Diavik dust collection sites and vegetation monitoring equipment should be left up long after the mine is closed, until significant regrowth of vegetation is verified by Elders;
- Watching should continue for at least 50 years after mine closure;
- Panel members should be able to quickly and easily access information being shared by DDMI, and outcomes of TK Panel sessions;
- Previous discussions and recommendations related to watching vegetation should be revisited (e.g. filtering contaminated water through moss, discussions of whether reseeded should occur) as this was the first opportunity for some participants to study vegetation first-hand away from the mine site during a TK Panel session; and
- Closure planning and watching should be conducted with transparency.

## Recommendations:

- 13.1 – Complete chemical testing of rainfall at the mine site.
- 13.2 – Hold a future TK Panel Session focusing on current and future vegetation monitoring that involves Diavik scientists, to enable us to comment on their program.
- 13.3 - Ask Rio Tinto Exploration (or anyone operating in area) to watch caribou and record location, numbers and behaviour, back to communities (record or video as much detail as possible around the condition, size, and weight of caribou).
- 13.4 - Watch for any new species of plants and animals and report them to communities, if they find them.
- 13.5 – Diavik and Elders should sample all animal scat from animals close to the mine when it is fresh, to see what animals are eating. Diavik should share the scientific results with TK Panel members.
- 13.6 – Also watch outside of the perimeter of the vegetation plots, add new plots, expand the size of the existing plots, and note any changes to the vegetation occurring over time. Visit the sites in summer to watch those plants, and also check for metals.
- 13.7 - Diavik should share dust collection results with communities and the TK Panel members, including hard copies.
- 13.8 - Diavik should share water testing collection results with communities and the TK Panel. The main concern is related to dissolved oxygen.
- 13.9 - Diavik should share an update on what species are in the lake, both fish and vegetation.
- 13.10 - Diavik should consider all previous TK Panel recommendations related to vegetation.
- 13.11 - Monitoring should occur with Elders and youth for over 50 years, watching and testing using both TK and science.

A verification session took place in December 2021, where recommendations were finalized and responses from Diavik received.<sup>1</sup> An earlier report was distributed at (and before) this session.

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<sup>1</sup> YKDFN participants did not attend the December 2021 verification session; LKDFN participants were able to attend the December 2021 verification.

## Participants

Nancy Kadlun	Kitikmeot Inuit Association (Kitikmeot Inuit Association / KIA)
Jack Kaniak	Kitikmeot Inuit Association (KIA)
Vikki Niptanatiak	Kitikmeot Inuit Association (KIA)
Kathy Arden	North Slave Métis Alliance (North Slave Métis Alliance / NSMA)
Marie Adele Football	Tłıchǫ Government (Tłıchǫ Government / TG)
Peter D. Sangris	Yellowknives Dene First Nation (YKDFN)
Kelsey Martin	Yellowknives Dene First Nation (YKDFN)

*\*Regrets: Sarazine Basil, Albert Boucher, Doris Enzoe, Gloria Enzoe (Łutsel K'e Dene First Nation / LKDFN)*

## Interpreters

Lena Drygeese	Yellowknives Dene First Nation (Yellowknives Dene First Nation / YKDFN interpreter)
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## Facilitators

Joanne Barnaby	Joanne Barnaby Consulting
Sarah Ravensbergen	Thorpe Consulting Services

## Observers / Presenters

Myra Berrub	Diavik Diamond Mines (2012) Inc. (DDMI)
Gord Cumming	Diavik Diamond Mines (2012) Inc. (DDMI)

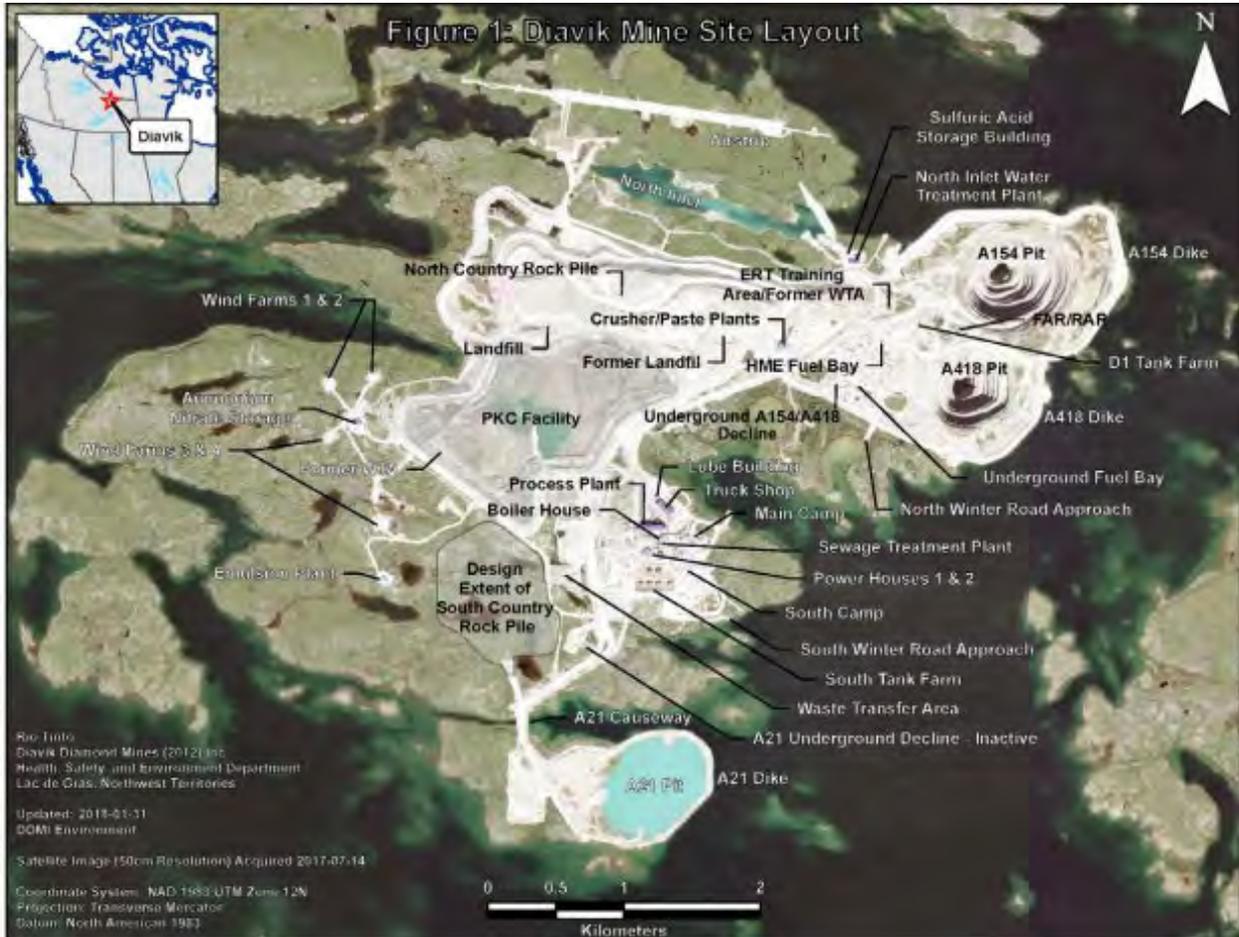
# 1 Background and Overview

Since 2011, the Traditional Knowledge (TK) Panel has guided Diavik Diamond Mines (2012) Inc. (DDMI) to consider TK appropriately and meaningfully in operations, environmental management and monitoring as well as closure planning at the Diavik Diamond Mine (Diavik). Since 2012, the TK Panel has been at least once a year to discuss select issues and concerns supported by EMAB and facilitators Thorpe Consulting Services Ltd. (Natasha Thorpe and Sarah Ravensbergen) and Joanne Barnaby Consulting. TK Panel #13 (‘Vegetation Watching and Monitoring for Closure’) was held August 6-8, 2021 at the Diavik Community-based Monitoring (CBM) TK Camp on Lac de Gras, approximately 3.5 km east of Diavik (Figure 1, Figure 3).<sup>2</sup> Table 1 describes the range of topics that previous TK Panels have explored.

Table 1 Summary of TK Panel Session Topics	
TK Panel Session #1	A Way of Life: Bridging Science and Aboriginal Knowledge in Caribou Monitoring (2012)
TK Panel Session #2	Renewing our Landscape: Envisioning Mine Closure and Reclamation at the North Country Rock Pile (2012)
TK Panel Session #3	Revegetation and Rock Pile Site Visit (2012)
TK Panel Session #4	Checking Nets: Reflecting on Our Progress (2012)
TK Panel Session #5	Closure / Reclamation and Landscape History (2013)
TK Panel Session #6	Processed Kimberlite Containment (2013)
TK Panel Session #7	Re-vegetation (2014)
TK Panel Session #8	Fish Habitat Design & Water Quality (2015)
TK Panel Session #9	Post-closure Wildlife Monitoring (2016)
TK Panel Session #10	South Country Rock Pile & TK Monitoring Plan (2017)
TK Panel Session #11	Options for Processed Kimberlite (A418) (2018)
TK Panel Session #12	Options for Pit Closure (2019)
TK Panel Session #13	Vegetation Watching and Monitoring for Closure (2021)

<sup>2</sup> While previous sessions have taken place in Yellowknife or at the Diavik mine site, the 2021 session followed the 2021 Diavik Aquatic Effects Monitoring Program (AEMP) at the TK camp from July 31-August 5, 2021 in order for activities to take place on the land. A report and video-documentary from the AEMP are available.

This report outlines key themes related to vegetation monitoring / watching considered by the TK Panel during the thirteenth session and presents subsequent recommendations. Appendix A contains presentations to help participants prepare for the TK Panel session, presented during the June 23-25, 2021 Planning Session.



**Figure 1** Map of Diavik Minesite

Appendix B contains the agenda and a blank copy of the informed consent form signed by participants. Attempts were made for daily notes to be reviewed and verified by each participant and are included in Appendix C. Appendix D contains the evaluation summary, while Appendix E contains the DDMI vegetation survey discussed and filled out during the session. Appendix F contains the breadth of previous TK Panel Recommendations and summarizes those specific to vegetation monitoring. Appendix G contains the Diavik Wildlife Management and Monitoring Plan factsheet shared during the Panel session, while Appendix H shows the Diavik maps of vegetation monitoring shared at the session.

## 2 Session Purpose, Goals and Activities

The purpose of TK Panel Session #13 was to watch vegetation in-person and to explore and consider future vegetation watching and monitoring for closure and post-closure activities.

As with previous TK Panel Sessions, the session format followed an agenda (Appendix B), with modifications during the session to accommodate participant feedback and weather conditions limiting certain activities.

The goals of the session were for TK Panel members to:

- Provide input into monitoring to ensure that water, fish and vegetation are healthy during and after pit closure;
- Discuss, shape, and give feedback on Golder and DDMI's first draft of a formal TK vegetation survey for sites;
- Identify additional sites for future watching;
- Build on discussions of previous TK Panel's exploring healthy vegetation and vegetation watching now, during closure, and post-closure; and
- For TK Panel members to "see with their own eyes" the health of the vegetation near the Diavik mine site.

The guiding questions posed during the planning session for the Panel to consider were:

- How can you tell the land (vegetation) is healthy?
- Are there particular plants that tell you about the health of everything (i.e., the ecosystem)? What are you looking at and for?
- What should be watched in a plant monitoring program during and beyond closure?
- Where, when and how should the land (vegetation) be watched?
- Are there key plants that should be monitored?
- How can we best use our time on-the-land to advance watching programs around plants now and into the future?

These guiding questions, and the DDMI vegetation survey (described below), were the basis of the activities for the session. The main activities of the session (in addition to the planning meeting held June 23-25, 2021 in Dettah, NT) were daily group discussions and two field trips at Lac de Gras, August 6-8, 2021.<sup>3</sup>

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<sup>3</sup> Participants attended in person; due to COVID-19, Natasha Thorpe and Sarah Ravensbergen joined virtually using Microsoft Teams.

## 2.1 Planning Session

At the planning session, the purpose, goals and activities of the upcoming session were discussed. Several presentations on the background of the TK Panel and past TK Panel recommendations were shared and considered (Appendix A). Participants explored the importance of watching specific plants (especially lichen and other caribou food), and vegetation close to the mine, far from the mine, along the shore of Lac de Gras and other water bodies, and along caribou trails:

It would be good to see plants in the water because we are across the lake from Diavik. Plants will look healthy away from the mine but may not be. I want to see if the berries are healthy. It's only three years ago that we were close to the rapids [at the Narrows between Lac de Gras and Lac du Sauvage]. We could stay close to the shore and the camp and look at plants, this would be good because the ground is rough for Elders to walk on. Elders can tell us which plants are healthy and which are not. [Doris Enzoe, LKDFN, June 25, 2021]

As in previous sessions, members emphasized the importance of considering the impacts of climate change. Participants also requested that the DDMI vegetation team check which monitoring sites were added in 2013 at the request of the TK Panel, and that clear maps of vegetation monitoring sites and zones be printed for each participant.<sup>4</sup> Appendix J shows the maps of Diavik vegetation monitoring sites shared during the session.

## 2.2 Session Discussions

Group discussions and field trips to watch vegetation close to the CBM camp were the focus of the TK Panel Session at the CBM camp.

The session was planned to coincide with the field season for Golder vegetation scientists, who were monitoring at specific vegetation plot sites in early August 2021 (Appendix J). Between the planning session and the TK Panel Session at the CBM camp, DDMI and Golder adapted a vegetation survey with the aim of having community members fill out surveys at vegetation plot sites they chose to visit. During the first day, participants met with facilitators and Diavik staff to discuss these survey questions as a group, give feedback to Diavik on the survey prior to the trips to vegetation plots, and decide which vegetation plot sites they would like to visit. Appendix E shows the vegetation survey and the modifications made by participants and facilitators (changes to the survey were made right on the forms). Changes included removing some questions seen as duplicates to keep the survey shorter and adding a question to determine if people are interested in vegetation watching in the future.

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<sup>4</sup> DDMI confirmed that three new sites (NF21-23) were added in 2013 at the request of the TK Panel.

The final survey questions were agreed as follows:

- Q1: Is the vegetation in this area healthy? How can you tell?
- Q2: Would caribou like the vegetation here? What plants or lichens would caribou be attracted to?
- Q3: How does the dust affect these plants?
- Q4: How much food is there in this area for caribou?
- Q5: Are you seeing similar changes here as you are in other parts of the tundra?
- Q6: How would you recommend Diavik monitor vegetation and lichen going forward?
- Q7: Would you be interested in participating in future monitoring? If so, how?

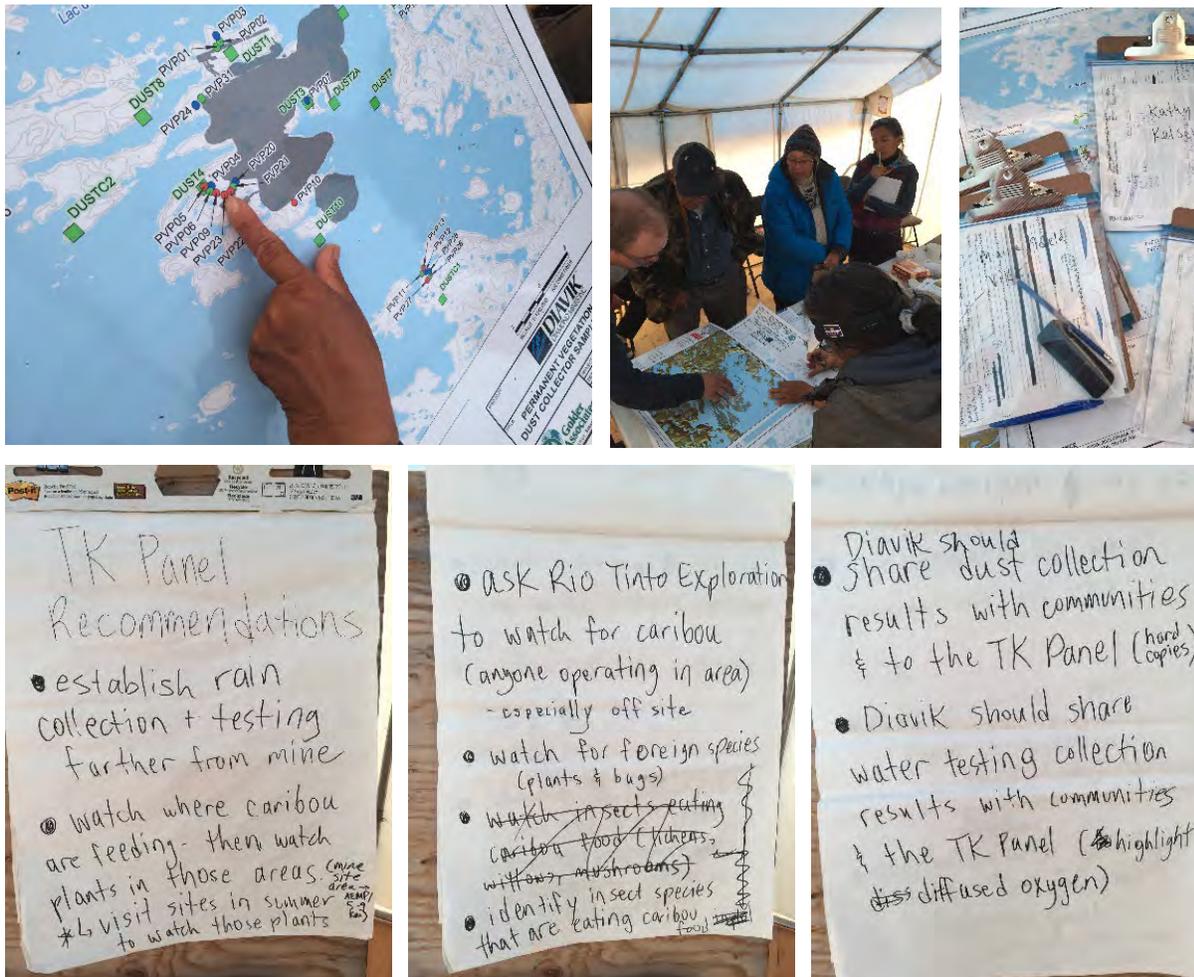


Figure 2 TK Panel Members Discuss Vegetation Watching and Recommendations

Beyond discussion of the vegetation survey questions, the group considered the importance and use of the land and vegetation in the Lac de Gras area, and observations / guidance related to watching, ways of knowing, and communication. Members explored current DDMI vegetation sampling with Gord Cumming (Diavik Environment Coordinator), who gave an overview of and answered questions about ongoing scientific monitoring of vegetation at plot sites. TK Panel members had questions for DDMI about ongoing operations, including how (methods, techniques), how often, and where, dust sampling and invasive species monitoring happens. TK Panel members also revisited and deliberated findings from previous TK sessions on vegetation, adding to previous observations and experiences (Appendix H).

In past TK Panel Sessions, discussions to finalize recommendations have taken place collaboratively between facilitators and participants, with Diavik offering initial responses directly at the session; this process provides strong consistency, feedback, and communication between the TK Panel members and Diavik staff. This year, COVID-19 prevented TK Panel members from being at the mine site, and logistical and technical constraints prevented the finalization of recommendations. Instead, recommendations were drafted to the best of the group's ability and finalized at the verification session where Diavik provided a preliminary response.

### 2.3 Field Trips

...I'm very happy to walk on my ancestors' trails, and I know my dad is here somewhere. Maybe I'm walking in his footsteps, or my grandpa's.

[Marie Adele Football, TG, August 6, 2021]

Although participants first choice of field trip was the Narrows, this was not possible due to high winds and inclement weather (or trips anywhere with high wind exposure).<sup>5</sup> Instead, two field trips from the CBM camp were taken to sites closer to the camp: vegetation site / field trip #1 took place on August 6, 2021, and vegetation site / field trip #2 occurred on August 7, 2021 (Table 2, Figure 3). Participants divided up according to community/ language groups to record their observations of the land and vegetation in the area and to fill out the vegetation survey.<sup>6</sup> While some participants chose to write out their answers on the survey sheet, others selected to use voice recorders or their phones to verbally record the answers of those in their group. Few answers were recorded on forms as most participants chose to audio record. Once participants tried to answer the survey questions in the field, they found it challenging, and noted they would

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<sup>5</sup> Participants discussed the desire to compare water in Lac de Gras and at the narrows of Lac du Sauvage, because of the way the water moves (from Lac du Sauvage west towards Diavik Island). Participants felt that water and fish may be different there and would like to check vegetation at the narrows given that it is also an important caribou crossing.

<sup>6</sup> LKDFN took part in initial discussions but not field trips or finalizing recommendations.

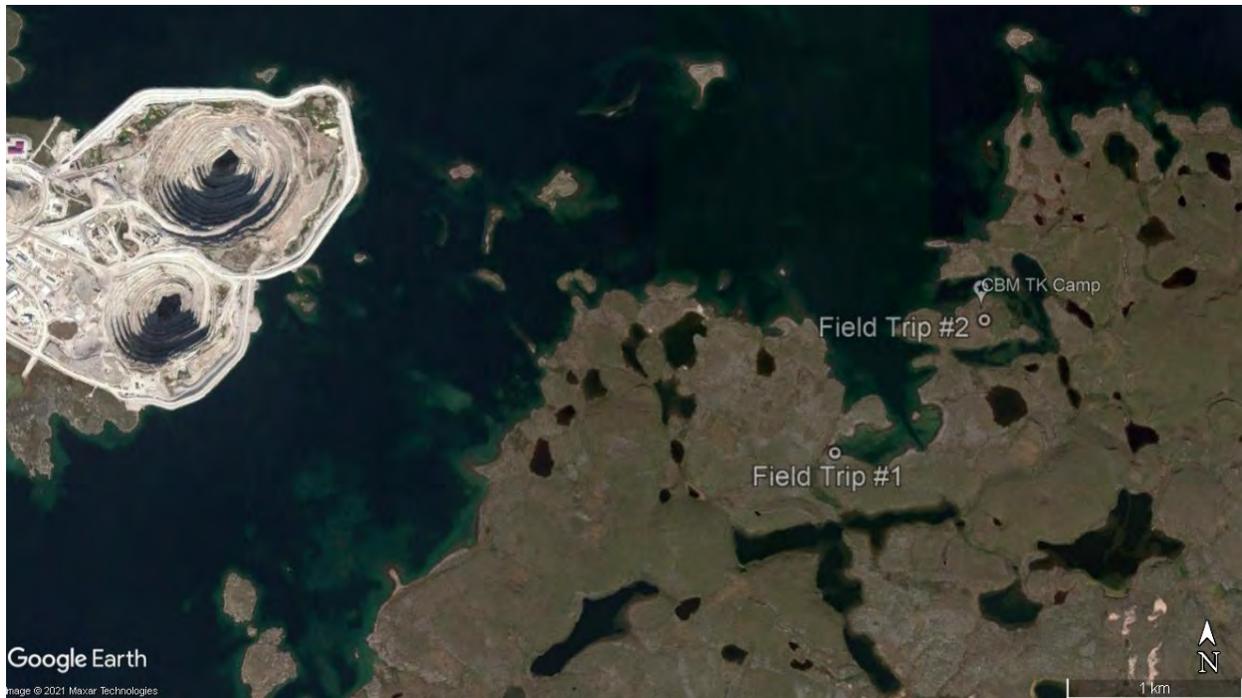
have liked more time to think about their responses. It was apparent that using surveys may not be the best way to address their observations and to provide TK input. This is something to consider for future field trips.

During the first field trip, the group took three Lund boats to the vegetation / field trip site (about a 15-minute boat ride from camp) and spent the morning walking the tundra and watching plants and the land, talking amongst each other and telling stories. During the second field trip, the group walked to the Golder vegetation monitoring plot and dust gauge directly adjacent to the CBM camp. Participants wanted to see what scientists are looking at and make comparisons. Gord Cumming shared information about the current monitoring program (e.g., how far apart the vegetation and dust collection plots are, how and when sampling occurs, what is tested). Inclement weather prevented long discussions outside, so discussions continued inside the cook tent later in the day.

<b>Location Description</b>	<b>Easting</b>	<b>Northing</b>	<b>UTM Zone</b>	<b>Datum</b>	<b>Comments</b>
Vegetation Site / Field Trip #1: Vegetation site in bay southwest of CBM TK camp (August 6, 2021)	540725	7151301	12	NAD 83	Participants ranged up to 500m away from coordinates observing vegetation. Participants wanted to watch plants close to the mine site. This site could be accessed safely even in high winds.
Vegetation Site / Field Trip #2: Vegetation site right beside CBM TK camp (August 7, 2021)	541128	7152124	12	NAD 83	Focused on the vegetation box immediately to the south of CBM TK camp (coordinates will be exact from the lichen/vegetation monitoring program completed by Golder, current coordinates are approximate from GIS). Participants wanted to see the site right behind camp and the dust gauge, as site could be safely accessed during high winds.

Following each field trip, Panel members met to consider and discuss what they saw as a group. On August 7 and August 8, 2021, group discussions on preliminary recommendations were held; these were reviewed again to a fuller extent on the following day (Section 4). Participants agreed they would be finalized at the verification session.

Through these discussions and field trips, key observations and guidance points (Section 3) and recommendations (Section 4) emerged.



**Figure 3** Map of CBM Camp and Location of 2021 Field Trips / Vegetation Watching Sites

### 3 Key Observations and Guidance Points from the Session

As with previous TK Panel sessions, observations and guidance on current and future watching, ways of knowing, and communication, in addition to formal draft recommendations, were documented. TK Panel members spent several hours watching the land at each field trip / vegetation site (Figure 3) as well as answering questions from the DDMI vegetation survey (Table 3).<sup>7</sup> Participants saw many different types of vegetation at both sites. At site #1, species found included ground willow, Arctic willow, berries (blackberry, blueberries, cranberries, cloudberries, bear berries), mushrooms, mosses, medicines, and lichen. A common theme of discussion was how healthy vegetation supports people and wildlife:

Plants need to grow for the animals, especially in August, before September comes and it gets cold. [Jack Kaniak, KIA, August 7, 2021]

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<sup>7</sup> While the survey questions generated talks about a range of topics related to vegetation health, group discussions were critical for more detailed information-sharing. Indigenous community members have been “monitoring” (or “watching”) their lands since time immemorial, and the nature of this way of knowing cannot be captured by survey questions alone. Very few participants chose to record information on the paper forms.

These kind [blackberries] there are lots in Wekweètì, they're big at this time. Any time as soon as spring comes, they're there. ... We eat these, mix them with cranberries or blueberries when we're cooking, especially when it's rainy. When the women go out for picking berries. [Marie Adele Football, TG, August 6, 2021]

Lena Drygeese: "...they call it. ... moss [kw'ah]?"

Peter D. Sangris: Yes.

Lena Drygeese: Moss, spongy. You use it for pads, and for baby diapers. He said, you can use it for pillow [laughter]." [Lena Drygeese and Peter D. Sangris, YKDFN, August 6, 2021]



**Figure 4** TK Panel Members Fill Out DDMI Vegetation Surveys

Beyond the survey questions, participants told stories and discussed use of the Lac de Gras area, including berry picking, traveling, hunting, trapping, fishing, gathering, storytelling and camping. TK Panel members emphasized that the presence of heritage resources found (e.g., campsites such as at the Narrows, fish markers at site #1), evidence of wildlife (e.g. old caribou trails) and healthy vegetation tell of the use and importance of the area by many different groups:<sup>8</sup>

Nancy described what to look for to show that an area was important for human use:

They line them [rock structures known as inuksuit] up where they fish, because people don't have radio, they would tell you, if you see a marker like that, it's pointing, that means there's fish there. ...I'm pretty sure people lived here long before, because it's a migration route for caribou. And lots of fish. ...Our Inuit from down there have been here, we know that from this rock. I know there's all those-how many people find Arctic tools here, many. Mostly arrows. [Nancy Kadlun, KIA, August 6, 2021]

### 3.1 What to Watch: Observations from the DDMI Vegetation Survey

People saw and described their observations in different ways. Some TK Panel members talked about the vegetation at vegetation site / field trip #1 as 'dry', and 'dying' while others saw plants that were 'good' and 'healthy' (Table 3). Although some participants observed that the amount of recent rainfall is helping plants grow well, others observed dried (yellow) and dying birch, willow and lichen. At vegetation site / field trip #2, some participants described the area as 'moist', 'healthy', 'good' and 'growing', while others described it as 'dead' and 'not ripe'.

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<sup>8</sup> As well as a *siksik* (ground squirrels) and ptarmigan, participants saw tufts of caribou winter fur and caribou scat, grizzly bear scat, old caribou trails, a caribou antler, a mouse, a jackfish head on the shore, and evidence of jackrabbits and wolves. Participants also noted changes in wildlife; several participants stated that there were fewer wildlife species than there should be in both locations (birds, e.g., ptarmigan and golden plover). Other changes in wildlife patterns were also noted (e.g., forest fires pushing moose north into the barrenlands to overlap with caribou habitat).

**Table 3 Summary of DDMI Vegetation Survey Results (Questions #1-5) 2021**

	Vegetation Site / Field Trip # 1 (August 6, 2021)	Vegetation Site/ Field Trip # 2 (August 7, 2021)
Q1: Is the vegetation in this area healthy? How can you tell?	“Very good - some plants die off fast when colder outside. Right now all vegetation looks healthy.” [Peter D. Sangris, YKDFN]	“My observations overall, they all look very healthy. ... Overall, they all look healthy, they’re growing. The berries, I see new growth. There’s not much lichen, I’ve seen some lichen that’s dead. Overall the grasses, mosses, look healthy. The smaller vegetation in there looks healthy, and there’s berries growing. Overall I would say it looks healthy.” [Kathy Arden, NSMA]
	“Everything looks dry.” [Marie Adele Football, TG]	“Things grow at their own pace here. Even the berries are not that ripe yet, they are still enclosed. It looks healthy right now, the way it looks now, the lichen. The moss looks good. Everything looks like it’s growing the way it’s supposed to, because everything grows slow in the tundra. ... It’s growing the way it should look.” [Peter D. Sangris, YKDFN]
	“For the most part, some lichen dying, cranberries just starting, lots of cloudberry, none bearing fruit yet, not much berries.” [Kathy Arden, NSMA]	
	“Looks healthy from recent rain (heavy and high winds).” [Jack Kaniak and Nancy Kadlun, KIA]	
	“Everywhere is the same now, dry, hardly rain here maybe this year. Everywhere yeah. Getting dry everywhere.” [Nancy Kadlun, KIA]	
Q2: Would caribou like the vegetation here? What plants or lichens would caribou be attracted to?	“Yes. See pictures.” [Written observation, Peter, YKDFN]. Barrenland mushroom. ... [Caribou] they avoid [eating] it, because they know there’s something in the middle there. Once it gets soft, it’s worms or something, bugs in there. Caribou eat only this kind, this lichen. Caribou scratch over it with their fingernails, they eat it. They just love it, caribou food. When it’s wet, they like it, they get fat right away. When dry ground, they don’t like it. Too dry to swallow. Wintertime, snow on it, they dig for it, they want to eat it.” [Peter D. Sangris, YKDFN]	“There’s not much caribou vegetation here. I see no mushrooms, the lichen is very sparse, which is what the caribou are attracted to. I don’t see any willows. There is a little tiny birch, don’t see too much of it around here. I don’t think the caribou would be attracted to this vegetation here. ... Nothing in caribou trails, I don’t think they come to this area very much, it’s very wet.” [Kathy Arden, NSMA]
	“If they're hungry they'll eat.” [Marie Adele Football, TG]	“When they go on their migration route, sometimes they travel fast, and sometimes they are slow, they just look around for

**Table 3 Summary of DDMI Vegetation Survey Results (Questions #1-5) 2021**

	Vegetation Site / Field Trip # 1 (August 6, 2021)	Vegetation Site/ Field Trip # 2 (August 7, 2021)
		their food. And then as soon as they have little bites here and there, they go on again. It's up to the caribou. Caribou is the boss." [Peter D. Sangris, YKDFN]
	"Possible, no lichen or mushrooms." [Kathy Arden, NSMA]	"Grasses, moss, but mostly lichen... the problem is they overstudy them, they are gone now." [Jack Kaniak, KIA]
	"Yes, yellow / white lichens." [Nancy Kadlun, KIA]	
Q3: How does the dust affect these plants?	<p>"Depends on which way wind is blowing. We are on Northeast. Wind blows north-northeast with dust from Diavik." [Peter D. Sangris, YKDFN]</p> <p>"There won't be too much around this. The mine is over there and the wind is mostly from the north, northeast, and southeast, not much west wind. Wintertime, not much west wind. Just in the summer. So the mines, the smoke blows the other way, that way, towards the west from the east. Not much wind from the west to the east. So there's not much around here. ... Rain is like a wash, it washes the land." [Peter D. Sangris, YKDFN]</p> <p>[Sarah Ravensbergen: "If there's dust on the plants, how does it change the plants? Would caribou eat those still if they had dust on them?"] "Again, it depends on the weather. So whichever way the wind is blowing, it would blow dust all around, like you've seen before from the camp, you're standing there and there's dust. So if the wind is blowing this way, it would cover these. But when it rains, it washes it all off, the rain drops here are huge. So the dust would fall off. But it's not saying that the land is going to be healthy all the time. Because it depends on the weather. ... [And if it goes into the soil] It would affect the growth of it." [Peter D. Sangris, YKDFN]</p>	<p>"The dust affects the lichen. Lichen is very sensitive to dust, and they'll die off pretty quick. Other plants I don't think are affected as much by dust as the lichen are. Like the birch, the broad leaves, if in a rain the dust will get washed off, grasses like dust, they grow along those roadsides and they thrive in those areas, so they're doing quite well. There are quite a few grasses, lots of grass in here, I think that's natural though for the area. The moss is looking pretty good because it's moist in here, I think they're happy right where they are. There are a lot of cloudberry in the area because of the moisture. They are all coming up now. Not ready to pick. I've seen a few cranberries coming out. They're small, but green, and crowberries as well. I imagine, I think caribou would like to eat some of the berries as well. I don't know how far the cloudberry go in here, but in this plot, there's quite a few cloudberry all over the place. Overall, I don't think there is enough food here for caribou, because their main diet is lichen or mushrooms, and I don't see any in here much." [Kathy Arden, NSMA]</p>

**Table 3 Summary of DDMI Vegetation Survey Results (Questions #1-5) 2021**

	Vegetation Site / Field Trip # 1 (August 6, 2021)	Vegetation Site/ Field Trip # 2 (August 7, 2021)
	<p>“Dust affects lichen greatly. It’s looking pretty good actually. I found a bear berry, this one here, it’s really nice and green but it’s hard to tell if there’s dust here. Most of the dust seems to be going that way, not so much this way. Even though we have the prevailing winds that seem to always come this way, it’s hard to tell. I think you maybe have to give them a swish with water to see if there’s any sediment on them. There’s also a lot of cloudberry. I don’t see any blooming yet, these ones right here. ... that’s all cloudberry, bear berry, there’s some cranberry there, a small little cranberry there. Last year’s cranberry. And this here, this yellow moss looks like a type of moss that the caribou eat. Although some have died, over there. Apparently lichen is very sensitive to pollution and they die very quickly. So maybe that’s what’s happening here. See this, this is all dried out.” [Kathy Arden, NSMA]</p>	<p>“If the wind blows this way and the dust falls in this area right here, when it rains, heavy rain, it kind of washes away the dust off the plants. But if it doesn’t rain for a long time, it dries up. ... By the way it looks right now, it looks like heavy rain, with the grass growing. But the only thing is the berries, the cloud berries should have been opening... they open lots of rain, sunshine. [Peter D. Sangris, YKDFN]</p>
		<p>“Heavy dust will cover it and keep plants from breathing. But if it’s light dust it will easily be blown away... washed away.” [Jack Kaniak, KIA]</p>
	<p>“Dust (human-made) different.” [Jack Kaniak and Nancy Kadlun, KIA]</p>	<p>“In terms of a good [weather] year, lots of water and wind blowing the dust away, and the sun. Rain, wind, and sun – these are the factors that matter for a good weather year [and therefore effects of dust on plants].” [Jack Kaniak, KIA]</p>
<p>Q4: How much food is there in this area for caribou?</p>	<p>“Lots and covered grounds. Good quality.” [Peter D. Sangris, YKDFN]</p>	<p>“Not much, the lichen is very sparse and few between. No, not much food in here. The quality is good, but there is just not much of it at all. It’s-no, they have to consume a lot, and the lichen is very thin and sparse, spread out all over the place. It’s not in nice big clumps like you can find sometimes, see how that’s gathered up over there? They can get bigger than that and they can come-it’s too sparse. ... There is still caribou food</p>

**Table 3 Summary of DDMI Vegetation Survey Results (Questions #1-5) 2021**

	Vegetation Site / Field Trip # 1 (August 6, 2021)	Vegetation Site/ Field Trip # 2 (August 7, 2021)
		that we see around, that first day we got in, I asked Myra to take me up on the hill as the helicopter was coming in. There were no blueberries but some were white and now after a few days they turn a bit blue... that's good. Cranberries greenish, light green, they will be ready by the end of the month. ... There are still blueberries and cranberries going so it's good, and there is still caribou food but I know it takes years to grow back." [Kathy Arden, NSMA]
	"Lots; looks good." [Marie Adele Football, TG]	"Yes. There seems to be a lot of lichen for caribou. When we're looking around there seems to be a lot in this area." [Peter D. Sangris, YKDFN]
	"Very little, poor quality, lichen spread out and thin." [Kathy Arden, NSMA]	"...seems to be a small plot ... this little plot, there's some caribou food." [Jack Kaniak, KIA]  Marie Adele: "Ice ... permafrost, there's permafrost under it, it melts a little and you see it." [Marie Adele Football, TG]
Q5: Are you seeing similar changes here as you are in other parts of the tundra?	"Hardly any changes that I've seen so far. All over tundra looks the same and have food for caribou." [Peter D. Sangris, YKDFN]	"I've never been on the tundra before. Judging from where we were yesterday to here, there is more moisture here in this area, so the plants are looking pretty healthy. The lichen in the other areas too was very sparse, there was also some dying over there, you see big clumps of it that were dying. I think there are changes between this and the place we were at [yesterday], about 4 or 5, maybe 7 km from here to the bay, back in the bay. There were more berries there, blueberries, cranberries were starting, bearberries were starting, crowberries were just starting, and here you can see some crowberries that are just starting, but there's lots of cloudberry. Those are the differences, I couldn't tell you

**Table 3 Summary of DDMI Vegetation Survey Results (Questions #1-5) 2021**

	Vegetation Site / Field Trip # 1 (August 6, 2021)	Vegetation Site/ Field Trip # 2 (August 7, 2021)
		<p>about similar changes from the past, because it's my first time on the tundra. Thank you." [Kathy Arden, NSMA]</p> <p>"Sometimes the temperature changes, it gets really hot, too much sun. And then the water will be literally drained down into the ground. And then the ground will get more water. The permafrost too is under this mossy ground. So if the ground stays wet with the rain, everything will kind of grow. That area we went to yesterday, there seemed to be like this year, when there was lots of caribou lichen. It's almost the same, because we are on the same area. Seems to be similar." [Peter D. Sangris, YKDFN]</p> <p>"Yes, similar changes to what we saw in previous plot." [Nancy Kadlun, KIA] "Yes, similar..." [Jack Kaniak, KIA]</p> <p>"I noticed the vegetation here since I started coming here. From all that heavy rain and wind, it cleans up all the surroundings, so I'm not seeing any difference." [Nancy Kadlun, KIA]</p>

TK Panel members agreed that weather and climate (e.g., amount of wind and rain, direction of wind, and weather patterns) greatly determine how much dust affects plants, and that lichen generally are very sensitive to dust. At both vegetation sites / field trips, participants felt that caribou would feed on vegetation there:

See the white stuff [lichen]: caribou food. Food. There too, white stuff. In the wintertime, they dig in the snow. Dig in the snow, and they look for that kind. Caribou food. They like to eat it when it rains, when it's wet. They just love it. It's like steak for them! [Peter D. Sangris, YKDFN, August 6, 2021]

People (within their language groups) scattered over the land in different directions once the boats docked at field trip #1; it is not clear if this was why there was such differences in some of the comments made. If participants were in one large group, there might have been a consensus drawn through discussion. Elders like to hear each other and reconsider their own preliminary thoughts after hearing others; this is why they like to work in groups. Traditionally, people would gather after someone went on the land, and they would share what they observed in a group. All members would discuss these findings and analyze them and decide if they had enough information to reach conclusions.<sup>9</sup> Often, they would flag issues that they should continue to monitor before reaching conclusions.

## 3.2 Ways to Watch

### 3.2.1 Watching Guidance

While questions #6 and #7 from the survey generated comments on future community engagement with vegetation watching, most guidance points were developed during group discussions. Some TK Panel members felt that the current vegetation monitoring program operated by Golder every five years is adequate, although others felt it should happen every two-three years:

I also observed lichen that's dying out there. It could be from dust. They are affected greatly from dust. Perhaps they could just check to see if there is any death to lichen in those plots. Even if not, writing it down, just to check and see if they are dying. ...they should make a note of it for sure. I know they are looking for growth but because of the dust we want to see if they are dying more than they are growing. ... I think they're on the right track for monitoring vegetation and lichen, because lichen grows slow. You can't monitor it every year, you're not

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<sup>9</sup> Barnaby, J. 2009. Indigenous decision-making processes: what can we learn from traditional governance? Prepared by Joanne Barnaby with contributions from Aalice Legat, Jackie Price, and Niklas Labba. December 17, 2009. <https://arcticgovernance.custompublish.com/indigenous-decision-making-processes-what-can-we-learn-from-traditional-governance.4667318-142902.html>

going to see a change. You'll just see slow growth, you want to make sure you see a difference. So I think the five year plan on lichen is good." [Kathy Arden, NSMA, August 7, 2021]

Monitor the changes in these greens, the berries, and anything that is growing on the land, and lichen for the caribou that is here. If you see it drying up, it means the weather is changing, there is hardly any rain. But if it's green like this right now, there's some rain over the summer nights. So if there's been rain off and on, off and on, it's going to grow good. But if isn't hardly rain, it's just going to be dry, yellow, and it won't be food for wildlife to feed on, especially caribou. Because you've seen that caribou trail, right. So they do come this way to feed. [Peter D. Sangris, YKDFN, August 6, 2021]

All TK Panel members expressed a desire to participate in current and future watching programs including the DDMI monitoring programs. Consistent with recommendations and outcomes from previous sessions, community members expressed the following guidance points regarding watching.

- **Both youth and Elders should work together in future watching programs that include both scientific and Indigenous knowledge:**

Yes, I would [like to participate in future monitoring], I have always been interested in things like this, and the how, is if I have a youth with me. I would really want to just keep coming back with them, so they can get stronger and willing, and have fun, have the strong feet, to do it. And talk and talk and talk to them about it, until it sinks into their head, about our land, and also about them, then they can come to, after they learn and have all the experience, then they can carry it off to another youth that will be replacing them. [Myra: We should try to bring the same youth back?] The same youth back, maybe for 2, 3, 4, 5 years, then at that time, they will be an Elder and they can bring another youth. [Would it be good if we tried to find someone to work at the mine site? Or a different program?] No, a different program, just like monitoring the land, the water, things like that. There would be some who I know they don't want to work at the mine. They would rather be in the land like this, and learn, at a camp like this, or like TG's. That's the way they will learn, and bring knowledge home and talk to their friends, or share with their friends what happened on the land. [Marie Adele Football, TG, August 7, 2021]

Sometimes I will talk and talk, especially to my kids, because I want them to grow to be strong. ... I'm happy I can teach my kids, who can help me when I'm not moving anymore, because I like to go on the land. ... You can learn from anybody, especially your Elders, because they want you to know everything. [Nancy Kadlun, KIA, August 6, 2021]

- **Climate change should be a consideration for all discussion / planning of watching programs going forward, not limited to vegetation:<sup>10</sup>**

We have to always think about the weather too, the sun. If there's been no rain for a long time, everything is going to dry. We have to be consistent, every two years monitoring would be really good, to make sure that as we go along with climate change, we keep track of how things are growing. Because if there's no rain and only sun every day like this... Everything depends on the weather." [Peter D. Sangris, YKDFN, August 7, 2021]

About the rock pile, I didn't see them cover it, it's supposed to be frozen for 200 years? We have climate change so this is a big deal to say. It's not going to be the same in the future with different species and the changes; is it supposed to stay frozen for 200 years? [Doris Enzoe, LKDFN, June 25, 2021]

After the mine shuts down, they should still continue doing the monitoring, because it takes a long time for everything to grow back the way it was. But I don't think it will be the same, this area, because we are so close [to the mine]. Everything will change, the climate, it could get more hot, things could start drying up, even the permafrost underneath here could start melting, and things could change. Maybe one day, we won't even have lichen here, we don't know, because things change. It takes a long time to grow back, for the lichen to grow. So it's really hard to say how it will look. But the monitoring has to continue, long after the mine is closed. [Peter D. Sangris, YKDFN, August 7, 2021]

- **Diavik dust collection sites and vegetation monitoring equipment should be left up well after mine is closed, until significant regrowth of vegetation has been verified by Elders:**

Leave it [dust collection sites] standing up. Even after the mine is closed, people are still going to be there, slowly closing up, and using machines, so just leave it there. [Peter D. Sangris, YKDFN, August 7, 2021]

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<sup>10</sup> Participants had many questions during the planning session and group discussions at camp regarding DDMI climate modelling projections; how DDMI knows the core of the pit will remain frozen; how percolating water and rain will affect permafrost at the mine site; acid generating rock; how materials will be kept frozen (naturally or mechanically); and the effects of climate change on all of these topics / issues.



**Figure 5 Vegetation and Heritage Resources Found on Field Trip #1**

- **Until we see significant regrowth. There's going to be lots of dust still flying off that big hill. We are talking about monitoring a site many years after closure. That could be one of the ways they do it. [Kathy Arden, NSMA, August 7, 2021]**

[It should be] long - four or five years ... As long as the dust is covered, maybe with grass, plants here and there, it should continue. As long as the mine is healed by itself, with all the waste on it. That's what I want. [Marie Adele Football, TG, August 7, 2021]

- **Watching (including vegetation) should continue for at least 50 years following mine closure:**

Nancy: We would like them to monitor at least 50 years, not just 20. Our land is important to us, especially our water. And our fish is hungry. I would like to keep it at least 50 years. ... Don't just take off after 20 years. Can you promise us for at least 50 years, not just 20? This is a whole big project they are doing. It hurts me if I say okay 20 years, that's nothing. We have so many people, we are sad for our

land. We need to try and feel better.

Myra: If things were really good tomorrow would you still want to do 50 years?

Nancy: I would still, because it's already not good. Let's not say if, it has already been done.

Peter: Write it down, 50 years.

Nancy: There's no more if.

[Nancy Kadlun, KIA, Peter D. Sangris, YKDFN, August 7, 2021]

### 3.2.2 Ways of Knowing Guidance

As with previous sessions, a key strength of the TK Panel is that members recognize that both scientific understandings and TK must be considered in closure planning; some panelists have advised that scientific testing (using the ability to study things at a microscopic level or through a reductionist approach) should be done before getting the 'big picture' available from TK. However, in all cases, scientists and knowledge holders must work together to watch the land; scientific monitoring and watching should be balanced. Expertise and understandings grounded in TK should provide the framework for discussions held at the TK Panel, so that TK can be braided into closure planning:

It's important to look at the plants and fish close to shore. The bears eat all summer and get fat, hibernate. Willows, grass, all the vegetation around the mine that grows should be watched. Sometimes places where they throw out grey water from the mine, the grass doesn't grow because there's stuff in the water. And the birds and ducks, fish, bugs, they are in the grass, and eat the grass, and eat what is in the grass. Fish eat in the grass in the water. Flies fall into the water, and fish eat those [so anything in the water goes through the ecosystem]. I one time saw ants in fish stomachs, they blew off the island [Diavik], and fish eat it. And fish don't stay in one place, they travel around, and people get sick from fish. ... There are changes to the water but they [Diavik] don't tell us what they are. ... We should go as far as we can toward the mine to watch things, berries, blueberries. I am Dene and travel on the land, I know contamination. We should go by boat, travel, and look on the shore, and show kids what to look for. We have to know what to look for when we go out. ... Scientists come and that's good, but we are acting like scientists too when we are out there, because we know the land and lie on it. We know if it will be a good or warm summer or if the berries will be edible. [Albert Boucher, LKDFN, June 25, 2021]

Hopefully all the people who are doing the science work are also trained Aboriginal youth. That would be really nice. [Nancy Kadlun, KIA, August 8, 2021]

At camp, TK Panel members expressed the importance of respecting practices and protocols when out on the land watching vegetation and how these should be respected in future programs and sessions. Participants at the planning session too noted it is very important to be respectful and pay respect to the land and water when at camp; participants also expressed the importance of taking the time to listen, learn, and share stories and teachings.

Dangerous to walk on barrenlands wearing red. Wear only green and black.  
[Marie Adele Football, TG, August 6, 2021]

Just don't look one place like that-keep your eye moving all around, once in a while, look good, if there's some big animal coming or something, you see, you move. If hungry, it'll try to get you ... it's just like jungle animals hunting their prey, like a tiger ... same thing. Always watch. Old timer people talk to young guys like that, tell them, young guys, when you travel on barrenlands alone, you think about [what] your grandpa told them. Keep in his head. Some, they don't care. Some young guys like that. You have to tell them over and over again.  
[Peter D. Sangris, YKDFN, August 6, 2021]

Like Peter says, if it rains lots in a certain area, lots of plants, berries grow, so people would always keep a lookout like he said, on the horizon, for animals, for everything. So - if you see-you watch the weather. If you see it's raining way over there, then when it's a clear day, they would know to walk there to see if there's any berries or anything, these things they can use for fire, you roll it up and use it for fire. Always watching the weather, watching the horizon, all the time. You watch the clouds, which way the weather is blowing, it's always got to be something to do with the weather. Even right now, you notice which way the wind is blowing. Then you stop and you smell something once in a while, and there might be another group of people over the hill making a fire. If you smell fire, you know there is people around. You always have to be aware, have to use your eyes, your mind, your nose, your senses, your feelings, your touch. ... [Peter D. Sangris, YKDFN, August 6, 2021]

### 3.2.3 Communications Guidance

TK Panel members frequently spoke of the importance of transparency, consistency and longevity in communications and community engagement. Several themes were repeatedly emphasized.

- **As noted in the TK Panel #12 report, TK Panel members need to be able to quickly and easily access information being shared by DDMI, and outcomes of TK Panel sessions:**

And we should have a book to see the changes, scientific and IK, that have happened since the monitoring started. Because the mine doesn't show members

at home what is happening at the mine site. So we have less caribou now and it's because the mines are built right on their travel route. And three years ago people were fishing and there were worms. I know there was also spills. I hope this year that we can see what is happening out there. And I don't mind seeing it every three years but then it [information] goes to the Wildlife offices in communities and we [TK Panel members] don't see the results. People should get a binder in the mail with results. Then people can see changes and understand what is happening and why the camp happens. [Doris Enzo, LKDFN, June 25, 2021]

[Sarah Ravensbergen: How could Tł̄chq̄ people be involved?] You can always do more. Talk to them, talk to them, make sure we go to meetings. Even our Elders that started with the mine, going to meeting after meeting, so they carry that, their son-in-law or grandkids. That's how our grandkids, young kids, they should continue talking to them about it. Keep talking about it and make sure they bring them here. And look around and make sure that Diavik is healthy again. -Marie Adele

- **TK Panel members discussed ideas presented in previous sessions with reference to vegetation (Appendix H). The desire to revisit and respect previous discussions and recommendations was discussed (e.g., past TK Panel sessions discussed using moss to filter contaminated runoff from pits, and reseeded of areas):**

...I know that they were thinking of doing a reseeded program using the natural plants that are here. Some people said just let it grow back on its own, don't touch it. Other people said no, we want you to plant seeds from the area, and they are being stored for planting after the mine closes. I guess it's a matter of whether we replant, or let it be. ... I just wanted to add, correct me if I am wrong Joanne, one of the things Diavik-I remember going to one TK where Diavik said, in the very beginning they collected seeds from the area, we had a discussion about that, whether we wanted to plant or transplant - ...but we never really came to a decision, it's a subject that still has to be discussed. [Kathy Arden, NSMA, August 7, 2021]

- **It is important for TK Panel members to feel that closure planning and further watching is done with transparency and 'done right', especially given previous experiences (e.g., Giant Mine) that have left community members nervous about the post-closure relationship:**

I have the same sentiment towards TK Panel [as others expressed in the closing circle] working so hard and agreeing and working together. And if you were not aware, this is the first mine that has this type of stuff [a TK Panel]...So, the world will be watching to see what happens here. [Jack Kaniak, KIA, August 8, 2021]

The land you see all around here is like the mine ... everything that grows on the land is food for the wildlife that roam on this land. We do not want food to be destroyed or contaminated for the wildlife ... we always have to raise questions, we always have to try to find answers. I'm thankful that I'm here with you to be part of this. [Peter D. Sangris, YKDFN, August 8, 2021]

The following recommendations made at TK Panel #12 continue to be important (follow up and implementation is required):

- All TK Panel reports need to be uploaded to a central online location (e.g., EMAB);
- At the end of each TK Panel session, a print-out of the points of guidance and recommendations will be distributed to each member; and
- TK Panel members need to be notified by email or by phone when their communities receive the reports such that they can access a copy and speak to it with other community members.

## **4 Recommendations**

Our voices need to be heard on our land. Especially if we are getting videoed, we have to put our voice out for the future. ... [Nancy Kadlun, KIA, August 6, 2021]

The TK Panel made a total of 13 formal recommendations related to vegetation (Table 4). Recommendations are numbered to reflect the TK Panel session identification (i.e., Session 13). Diavik will consider these and add them to their longstanding Recommendations Tracking Table once finalized at the verification session. As per the established practice, Diavik's response will be presented back to the TK Panel at the next session.

**Table 4 TK Panel #13 Formal Vegetation Recommendations**

Recommendation	Rationale
13.1 – Complete chemical testing of rainfall at the mine site.	People want to understand why they are seeing changes now that they did not see before.
13.2 – Hold a future TK Panel Session focusing on current and future vegetation monitoring that involves Diavik scientists, to enable us to comment on their program.	As some caribou are returning to the area, people want to know where they are feeding. Watch where caribou and other animals are feeding, then visit sites in those areas to test plants for contaminants (in the mine site area, 5-9 km from the AEMP TK Camp).
13.3 - Ask Rio Tinto Exploration (or anyone operating in area) to watch caribou and record location, numbers and behaviour, back to communities (record or video as much detail as possible around the condition, size, and weight of caribou).	People want to know as much as possible about what is happening with returning caribou.
13.4 - Watch for any new species of plants and animals and report them to communities, if they find them.	
13.5 – Diavik and Elders should sample all animal scat from animals close to the mine when it is fresh, to see what animals are eating. Diavik should share the scientific results with TK Panel members.	Elders can compare this to their knowledge to see if there is any change. As much information about how old the scat is would help to identify the source of where they are getting their food.
13.6 – Also watch outside of the perimeter of the vegetation plots, add new plots, expand the size of the existing plots, and note any changes to the vegetation occurring over time. Visit the sites in summer to watch those plants, and also check for metals.	Share with Elders.
13.7 - Diavik should share dust collection results with communities and the TK Panel members, including hard copies.	Elders are concerned that cumulative impacts are causing the water to heat up.
13.8 - Diavik should share water testing collection results with communities and the TK Panel. The main concern is related to dissolved oxygen.	Community members are concerned that water in Lac de Gras is not as clear as they would expect.
13.9 - Diavik should share an update on what species are in the lake, both fish and vegetation.	Want to know if there are new species of vegetation and fish that could be impacting the lake and the fish.

<b>Recommendation</b>	<b>Rationale</b>
13.10 - Diavik should consider all previous TK Panel recommendations related to vegetation.	
13.11 - Monitoring should occur with Elders and youth for over 50 years, watching and testing using both TK and science.	Need to get ready to empower communities to carry out watching long after the mine closes.

## 5 Next Steps

One verification session took place in December 2021, where the list of recommendations was finalized (Table 4). TK Panel members present agreed on the following order of priorities for TK Panel Session #14 and beyond:

1. Monitoring at and after Closure (i.e. Post-Closure)
2. Updates on PKC closure options
3. North Inlet
4. Closure Criteria and Session with Diavik scientists (so they can describe the monitoring programs and answer questions on the findings) would like community visits first, and then a TK Panel Session on this
5. Closure Inspection Details: building demolition, metal disposal, waste disposal, contaminants, laydown areas, airports, roads, etc.

**Appendix A - Background Presentations (June 2021 Planning Session)**



Presented at the AEMP and  
TK Panel #13  
Planning Session  
June 24, 2021  
(Presentation 6)

# The Diavik Diamond Mine Traditional Knowledge Panel

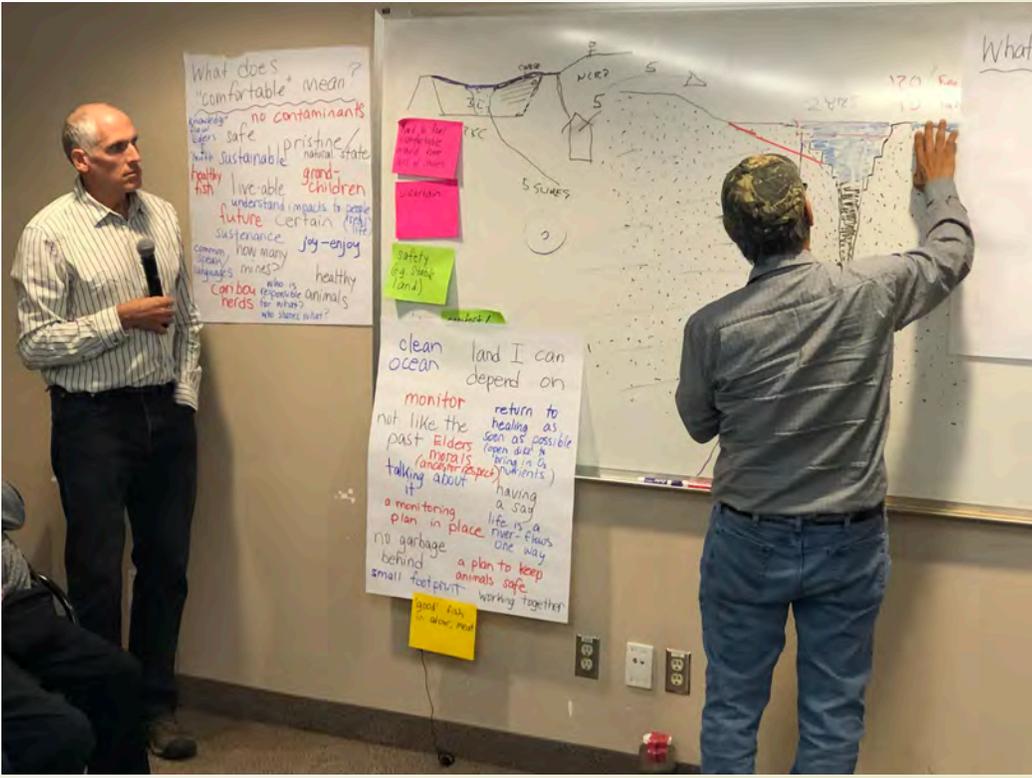


Tell us about  
the TK Panel



- Elders and community members wanted Traditional Knowledge to guide operations and closure alongside scientific knowledge
- 2011: TK Panel started under EMAB
- 2013: TK Panel wanted more direct sharing with senior environment staff, so the TK Panel moved from EMAB to DDMI

# How did the TK Panel start?



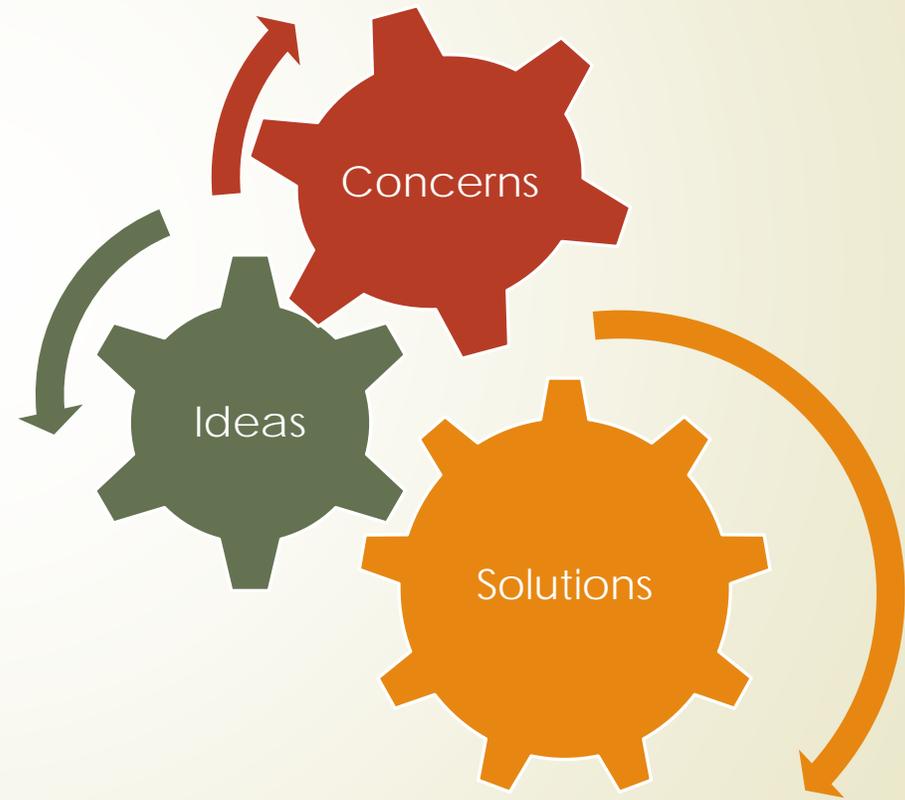
## Who is the TK Panel?

- ▶ Elders, TK holders and youth (3 members per group)
  - ▶ Kitikmeot Inuit Association
  - ▶ Łutsel K'e Dene First Nation
  - ▶ North Slave Métis Alliance
  - ▶ Tłı̨chǫ Government
  - ▶ Yellowknives Dene First Nation



What is the purpose of the TK Panel?

- to share concerns, explore ideas, and offer solutions to operations and closure issues at the Diavik Diamond Mine



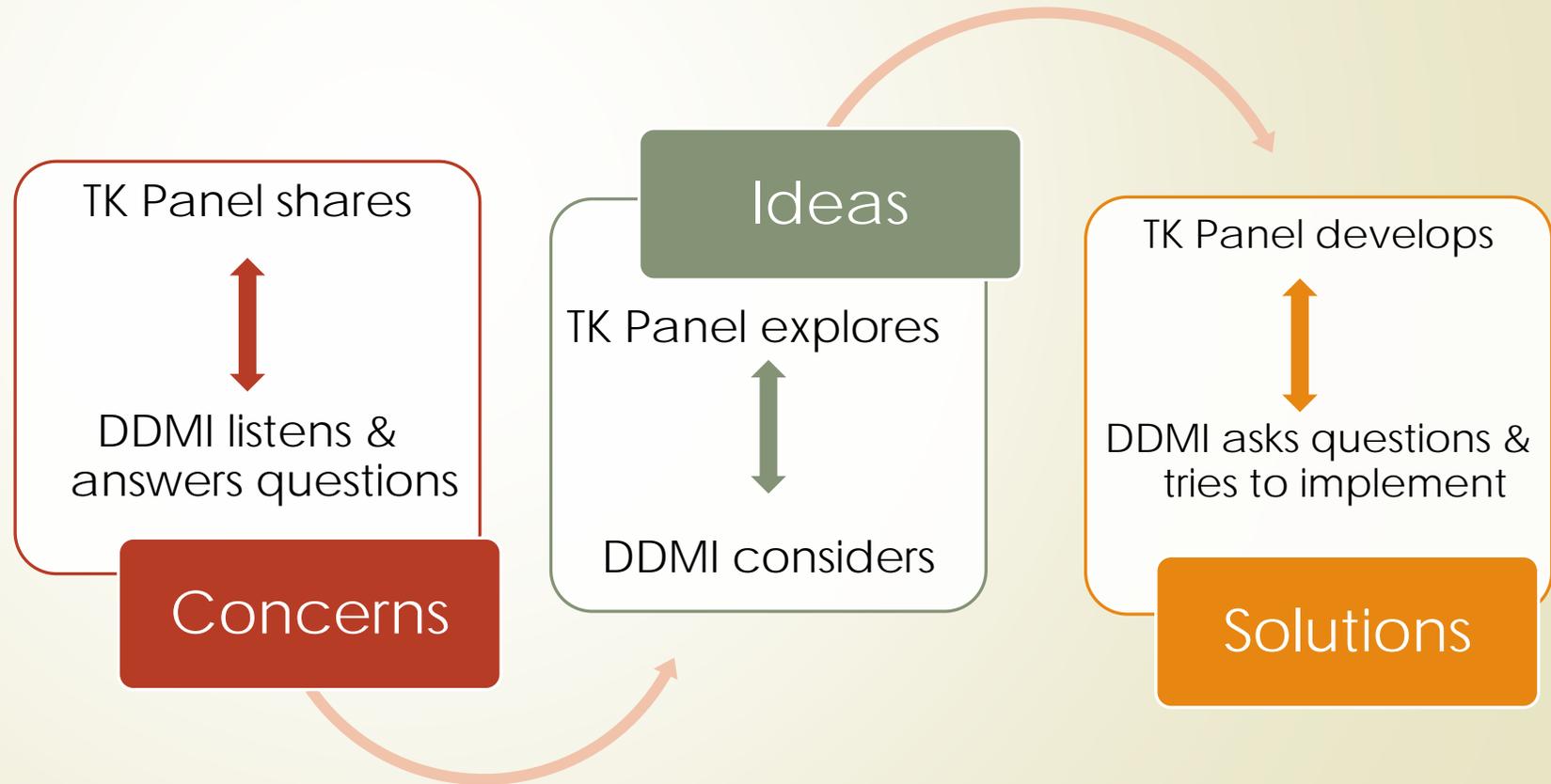
- ▶ develops and provides guidance and recommendations around key challenges for operations and closure planning



What does  
the TK  
Panel do?

- once the topic is introduced, the 5 day session gives time for constant back-and-forth with DDMI to learn about issues, share concerns, listen to worries, explore ideas, consider ideas, provide more details, and develop solutions

## What process guides the TK Panel?



# What is the format for each TK Panel Session?

## Session Topic Confirmed

- Building on previous recommendations, DDMI and TK Panel agree upon session topic based on current issues and closure plans

## Guiding Questions Developed

- Facilitators work with DDMI to prepare guiding questions in plain language, develop agenda and confirm participants

## TK Panel Session

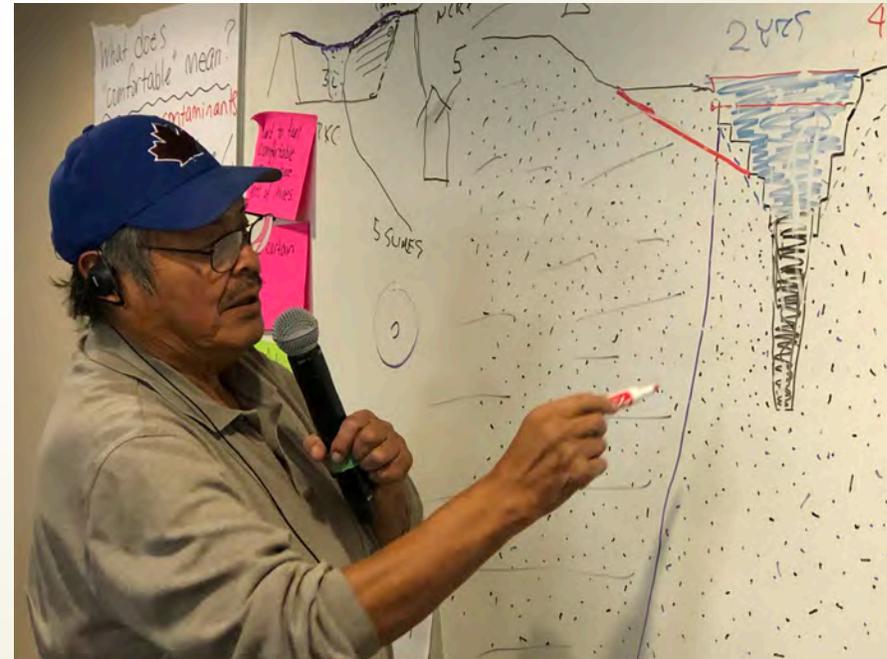
- Health & safety briefings and site tour to session topic areas
- DDMI and facilitators present background information
- TK Panel members share concerns, explore ideas, and ask questions to DDMI: large group and small group discussions
- Facilitators draft points of guidance and recommendations based on word-for-word transcripts reviewed, edited and approved daily by TK Panel members
- TK Panel member revise, review and agree upon wording for guidance and recommendations
- Guided by Elders, youth present recommendations to DDMI
- DDMI provides initial response to recommendations
- TK Panel members given session transcripts (word for word)
- TK Panel Session report prepared and given to communities

What is at the centre of the TK Panel?



# What has the TK Panel explored?

- 1: A Way of Life: Bridging Science and Aboriginal Knowledge in Caribou Monitoring (2012)
- 2: Renewing our Landscape: Envisioning Mine Closure and Reclamation at the North Country Rock Pile (2012)
- 3: Revegetation and Rock Pile Site Visit (2012)
- 4: Checking Nets: Reflecting on Our Progress (2012)
- 5: Closure / Reclamation and Landscape History (2013)
- 6: Processed Kimberlite Containment (2013)



# What has the TK Panel explored?

- ▶ 7: Re-vegetation (2014)
- ▶ 8: Fish Habitat Design & Water Quality (2015)
- ▶ 9: Post-closure Wildlife Monitoring (2016)
- ▶ 10: South Country Rock Pile & TK Monitoring Plan (2017)
- ▶ 11: Options for Processed Kimberlite (A418) (2018)
- ▶ 12: Options for Pit Closure (2019)



Caribou  
Example:



Concerns  
and Ideas

Tell us about  
what makes  
the TK Panel  
different





Our  
traditional  
laws guide  
us in  
working  
together



**Accountability:**

The TK Panel develops and delivers guidance and recommendations around key challenges and issues that are then tracked by community members, Diavik, EMAB and regulators.



**Consistency:**

The TK Panel membership has remained mostly the same from year to year so that members can draw on the lessons learned from previous sessions plus develop long-lasting partnerships and friendships between groups. (62% for core members)



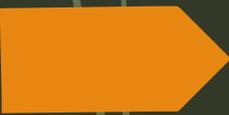
**Face to Face & Leader to Leader:**

The TK Panel members voice concerns, share ideas and provide solution in-person to senior Environment and Closure staff at the Diavik Diamond Mine.

We have  
worked  
hard to get  
this right

- ▶ **Model of Success:** We are proud that community members and regulators are calling for other developments across the North to follow the same approach as the DDMI TK Panel.



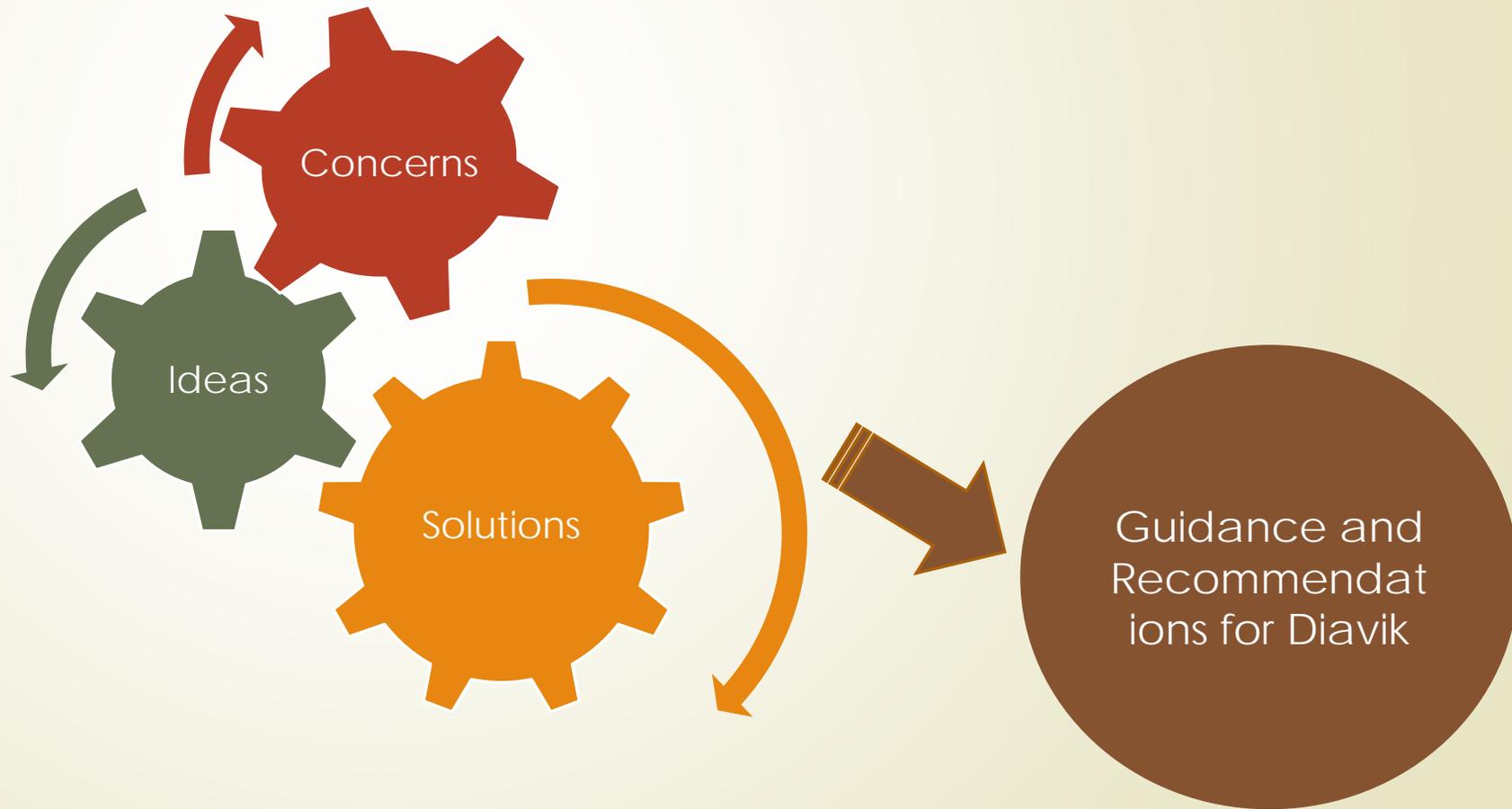


► Presented at the AEMP  
and TK Panel #13  
Planning Session  
June 25, 2021  
(Presentation 7)

# Traditional Knowledge Panel Session #13

What is the Topic for TK Panel #13?

- ▶ share concerns, explore ideas, and offer solutions around monitoring at the Diavik Diamond Mine
- ▶ develop and provides guidance and recommendations around monitoring for operations and closure planning





## What is the topic for TK Panel #13?

### Session Topic

- General Monitoring and Vegetation Monitoring

### Guiding Questions

- How can you tell the land (vegetation) is healthy?
- Are there particular plants that tell you about the health of everything (i.e. the ecosystem)? What are you looking at and for?
- What should be watched in a plant monitoring program during and beyond closure?
- Where, when and how should the land (vegetation) be watched?
- Are there key plants that should be monitored?
- How can we best use our time on-the-land to advance watching programs around plants now and into the future?

What TK  
Recommendations will  
guide us?



Questions?





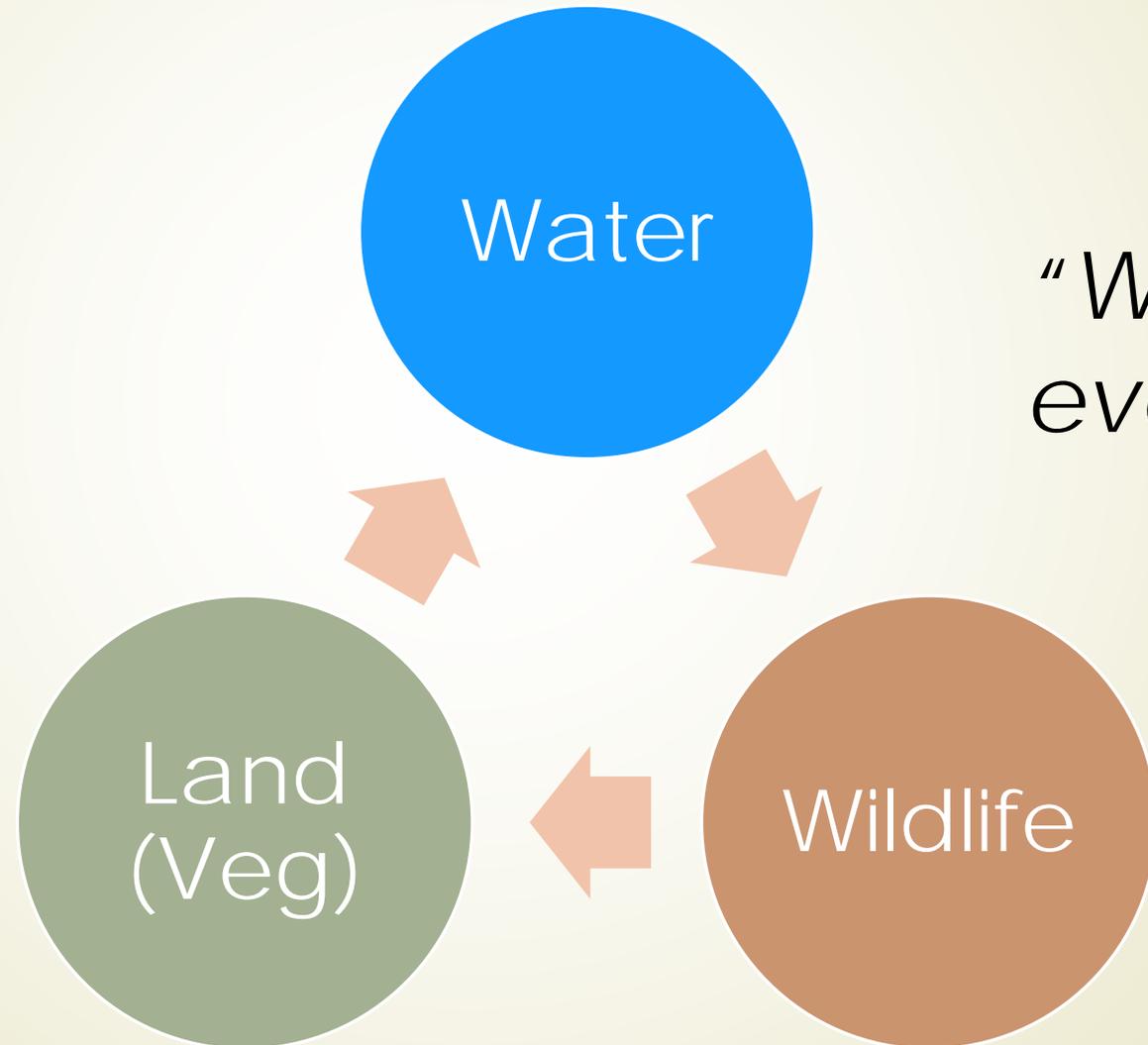
Presented at the  
AEMP and TK  
Panel #13  
Planning Session  
June 25, 2021  
(Presentation 7)

# Traditional Knowledge Panel: Monitoring Recommendations to Date

Foundations  
of the TK  
Panel  
Recommendations

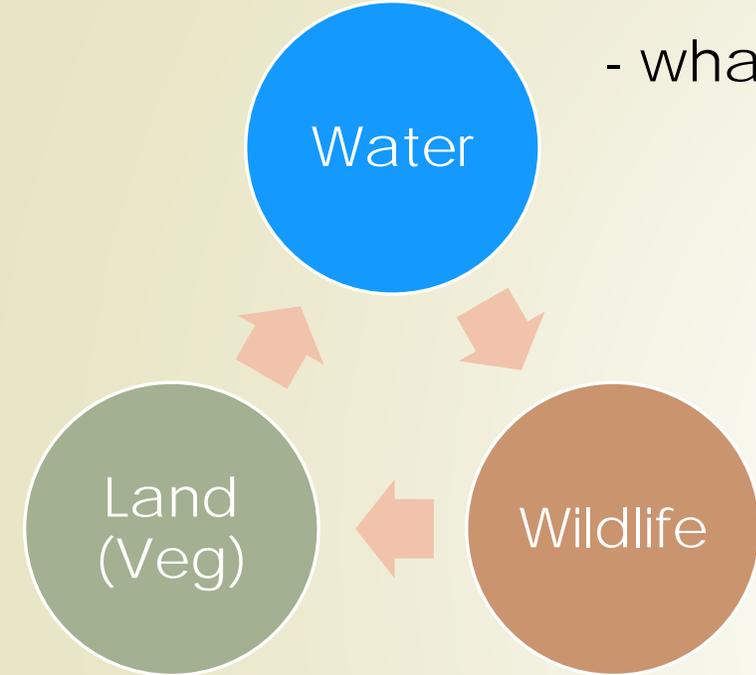


***What*** the TK Panel wants to watch:



*"We watch everything!!!"*

## Start-up watching projects might look at:



- what plants are growing on disturbed ground and why/why not;
- presence of grounds squirrels on the East Island;
- health of the shorebirds on the water (as an indicators for health of water);
- snow accumulation and natural revegetation around boulders atop the test pile;
- watch and monitor dust impacts on water and plants as an important part of the food chain;
- animal scat, this should be part of a TK Watching program;
- look at possible impacts on plants, with special consideration for those used for medicine.

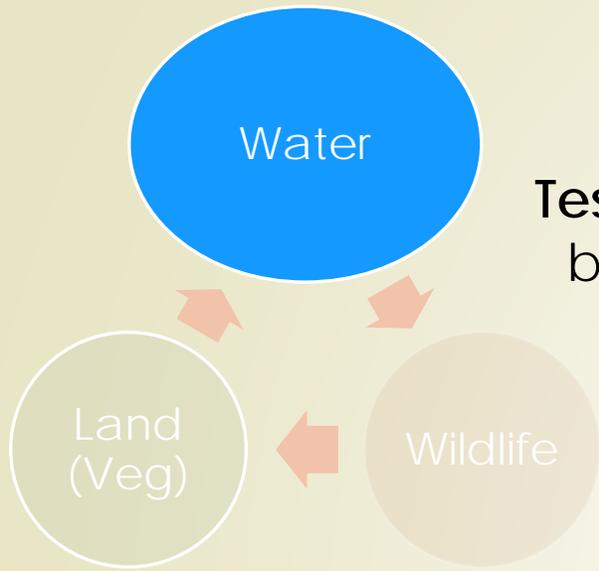
**Effectiveness Monitoring:** Focus monitoring to determine if steps taken/closure and reclamation actions are working the way they were intended, through the following measures:

- Include plant growth, plants dying, fur & antler condition, and presence/absence of injuries

or spots on the side of caribou as some of the indicators of caribou well-being

- Caribou presence identified on cameras, collars, and sightings would trigger monitoring
- Other animals can be indicators that the land is not healthy (e.g. smaller rodents, birds, fish can tell of change happening in larger animals like caribou, bears, etc.)

# *What* the TK Panel wants to watch:



**Testing with TK:** Water testing should be done by tasting fresh water and by boiling the water, letting it set overnight and drinking it the following day (observe scum and clarity).

**Testing with Science:** Test water [first] scientifically and not by tasting.

**Sampling Time:** Monitor water in late May and early June as these are critical times (i.e. melt).

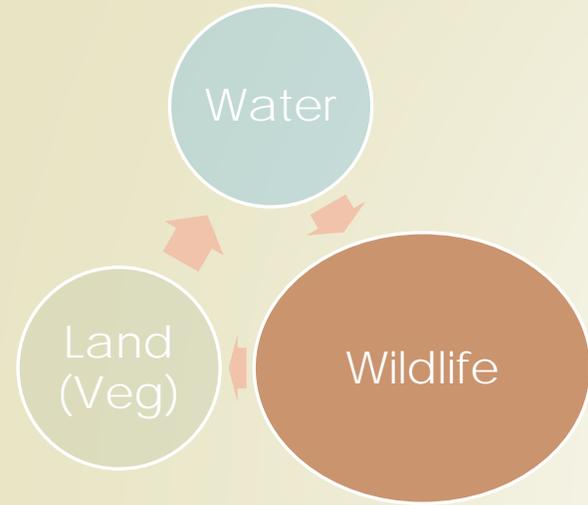
**Sampling Points:** Regularly measure water quality in all bays, drainage and run-off.

**The Narrows:** Sample fish and water from the Narrows (In both LdG and LdS).

**Fish Know Good Water:** TK holders know that fish generally go where there is food (nutrients) and oxygen so they are unlikely to go to the depth where PK would be.



# *What* the TK Panel wants to watch:



**Watch Caribou:** Four key areas for [caribou] monitoring: 1. Behaviours; 2. Herd composition; 3. Caribou health 4. Environmental conditions

**Use Technology:** Diavik must return East Island to a caribou-friendly state (as defined by the TK Panel and Elders), other than those areas identified as 'no-go' zones. Caribou pathways should follow caribou corridors identified through traditional knowledge. Ensure that all communities are involved in choosing where to establish locations for wildlife cameras, etc. Build on the locations and concepts identified by the TK Panel (i.e. refer to map). Train community members to operate monitoring technologies. Start using cameras now and

**Watch all Mines:** Focus monitoring on wildlife health and safety and possible impacts of other mines in the Lac de Gras area.

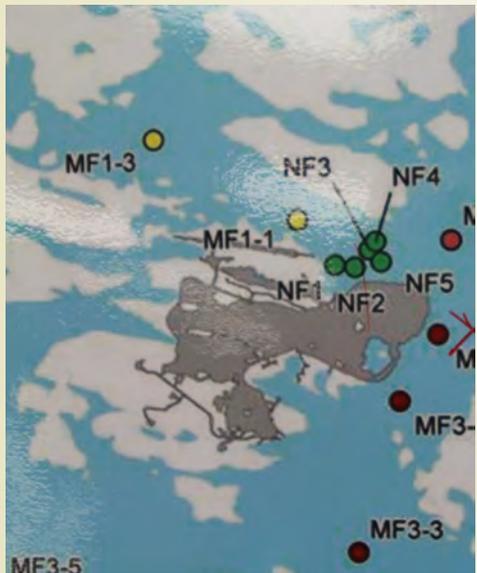
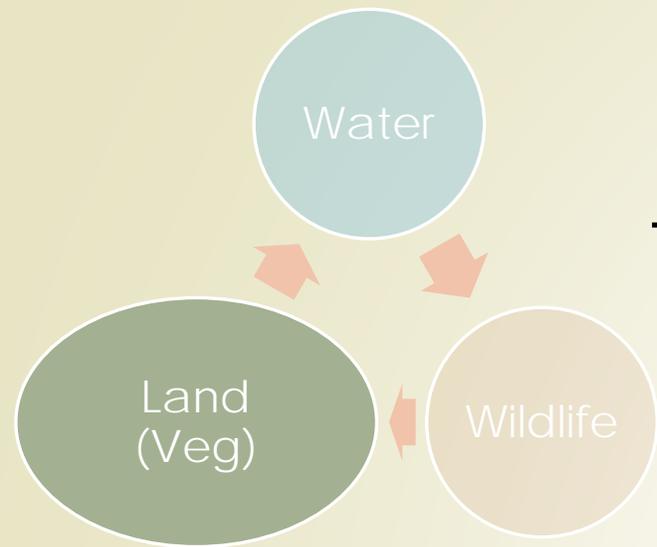
# *What* the TK Panel wants to watch:

**Transplant:** Transplant a variety of natural 'tundra mats' and compare them to seeded test plots; this will help natural recovery by maintaining the biodiversity of the area.

**Reseed:** Re-seed land and use dirt and safe sewage to facilitate re-growth. Use the natural tundra mat to guide plant selection to ensure natural balance.

**Women Perspective:** Have a women's only session in the field next summer to address vegetation and other issues of interest to them.

**Watch Shoreline:** Annually check for algae growth around shorelines as too much can be an indicator that there is less oxygen for the fish.





# Questions?



The RioTinto logo is displayed in white text on a red rectangular background. The background of the entire slide is a photograph of a field of white, fluffy flowers on thin green stems, with a soft-focus background of more greenery.

RioTinto

# Diavik Vegetation Monitoring:

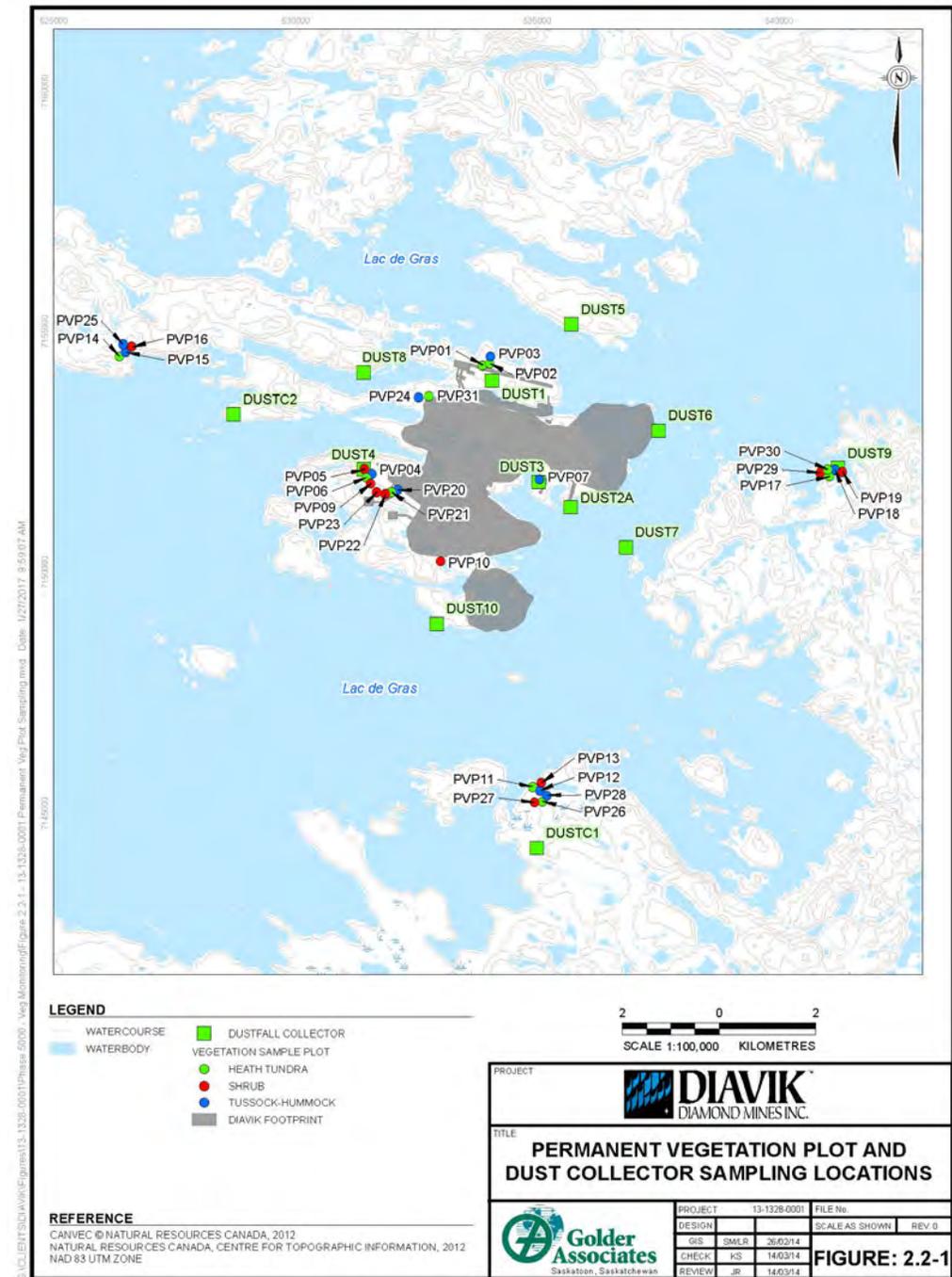
Presentation for 2021 TK camp

Gordon Cumming (DDMI) 24 June, 2021

Document Control #: ENVI-1215-0624  
Template #: DCON-029-1010 R8

# Vegetation-Related Monitoring Programs

- Vegetation and Lichen Monitoring Programs – Golder Associates
  - Completed in 2001, 2004, 2006, 2008, 2010, 2013, and 2016.
  - Now completed concurrently every 5 years, next one scheduled summer 2021
- Dust gauge collection program – 13 dust tubes collected every 3 months.



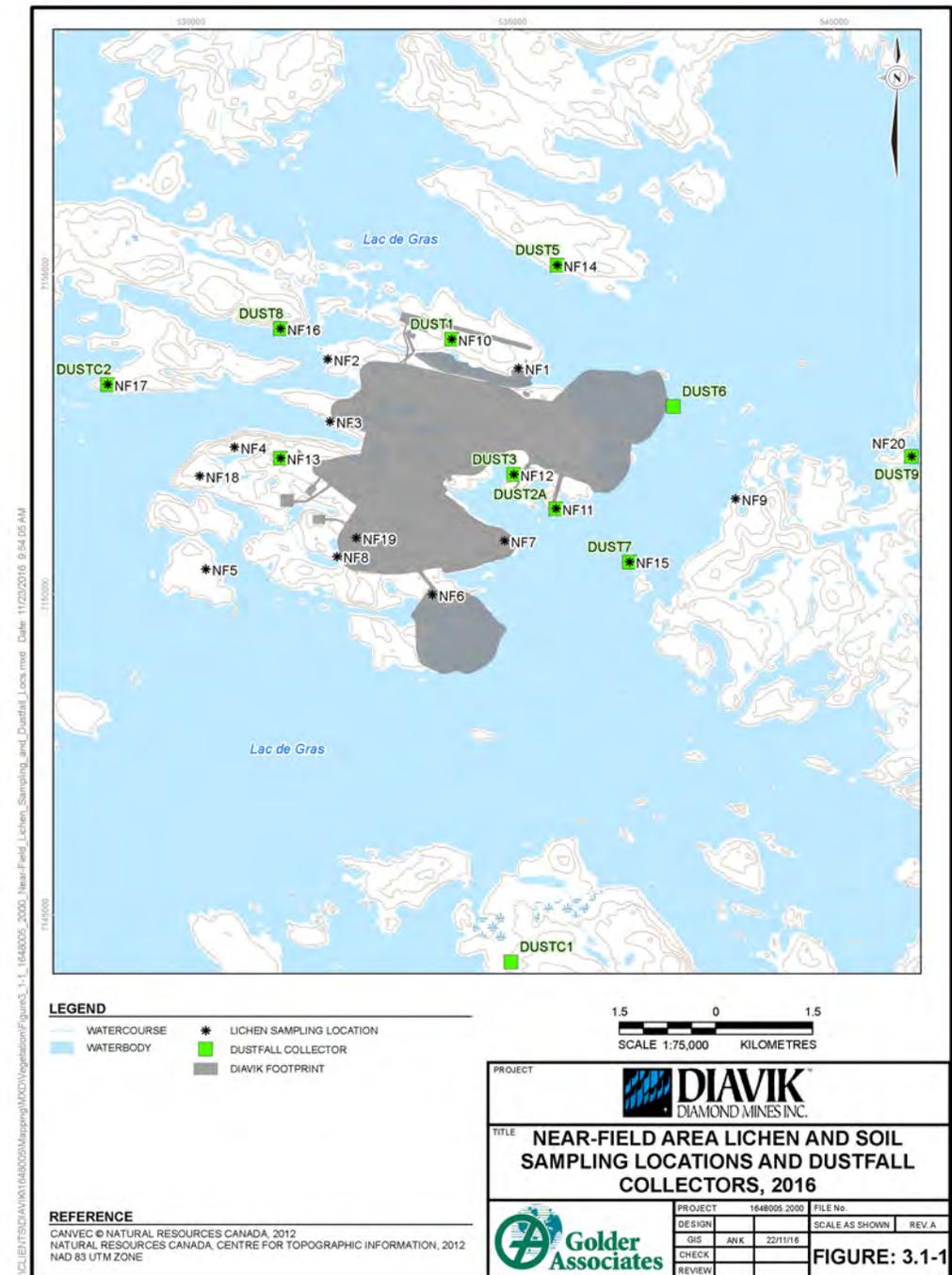
# Vegetation Monitoring Program

- 30 Permanent Vegetation Plots (PVPs) established since vegetation studies began in 2001.
- Plots are analyzed for plant species diversity and plant species abundance, looking for changes through the years, and between locations.
- Plots described as Mine plots or Reference plots based on distance from the Mine. Reference plots are compared against Mine plots.
- Dust deposition rates are analyzed to compare against vegetation findings.



# Lichen Monitoring Program

- Collection of lichen samples for chemical analysis of metals content. Determine possible health effects to caribou
- 3 sampling zones:
  - Near-field up to 6km from Mine,
  - Far-field 30km to 40km from Mine
  - Far-far-field 100km from Mine
- Several sites added to all zones in 2013 at the direction of community elders.
- Soil samples collected to analyze soil chemistry at all lichen sampling locations.
- Comparison between distance from mine, and changes between years.



# Dust Monitoring Program

- 13 dust gauge tubes permanently installed on the tundra get collected quarterly, the dust in each tube is weighed.
- Average dust deposition rate for each location calculated based on time the tube was replaced.
- Provides an indication of how dust deposition rate changes throughout the year, and at different locations around Lac de Gras.
- Sampling of snow cores for dust analysis on the lake, gives an indication of deposition rates over the ice cover period.

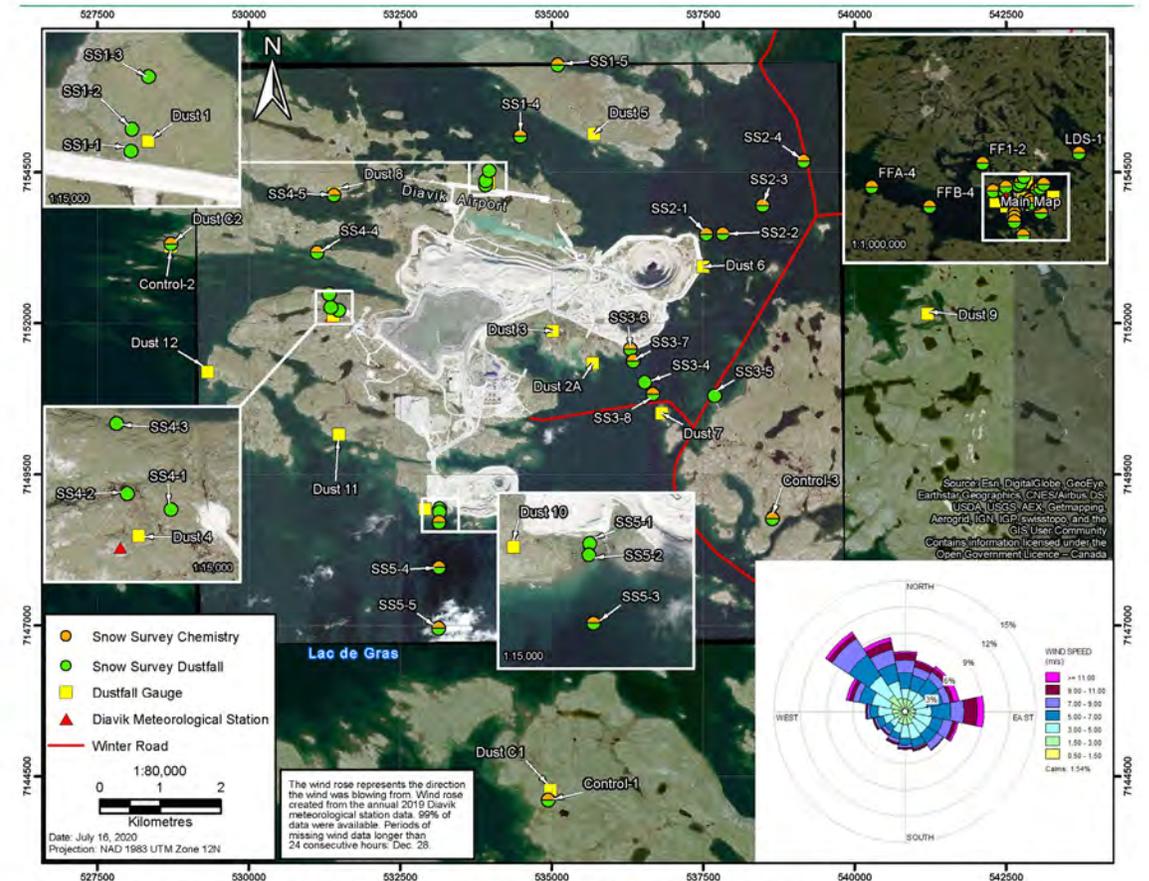


Figure 2.1-1: Dustfall Gauge and Snow Survey Locations, Diavik Diamond Mine, 2019

Thank you!

Questions?



**Appendix B – TK Panel Session #13 Agenda and Informed Consent Form**

**Diavik Diamond Mines (2012) Inc.  
2021 Aquatic Effects Monitoring Program and TK Panel #13**

**Schedule of Daily Activities**

<b>Friday, August 6 (Day 1): Vegetation Monitoring</b>	
7:30 am	Breakfast
8:00 am	Morning Gathering: weather check and review plans for day
9:00 am	Visit Vegetation Plot / Monitoring Site Develop monitoring priorities, guidelines, protocols
12:00 pm	Lunch
2:00 pm	Develop Monitoring Recommendations
6:00 pm	Dinner
7:30 pm	Evening Gathering and Teaching Session; planning session for Day 8

<b>Saturday, August 7 (Day 2)</b>	
7:30 am	Breakfast
8:00 am	Morning Gathering: review plans for day
9:00 am	Review Recommendations
11:00 am	Present Recommendations to DDMI
12:00 pm	Lunch
2:00 pm	Review of daily notes by camp participants (all days) Measuring success: participant evaluations completed Closing Circle
6:00 pm	Dinner
7:30 pm	Evening Gathering and Teaching Session; logistics for Day 9 and return trip home

<b>Sunday, August 8 (Day 3)</b>	
7:00 am	Bags packed Breakfast
9:00 am – noon	Morning Gathering Closing Prayer and Ceremony Flight 1 departs Flight 2 departs
12:00 pm	Return to YK (Air Tindi Float Base)

Please contact Myra Berrub (DDMI) @ 780.667.1242 or Joanne Barnaby @ 867.876.1119 with any questions.

# Diavik Diamond Mines Inc. Aquatic Effects Monitoring Program 2021

## *Informed Consent Form*

I (name) \_\_\_\_\_ on \_\_\_\_\_, 2021 give permission for Thorpe Consulting Services Inc., Barnaby Consulting, aRTLeSS Collective, Diavik Diamond Mines (2012) Inc. and other program participants (i.e. community youth) to take notes, photographs and/or audio and video recordings related to “my participation” in the DDMI Aquatic Effects Monitoring Program (AEMP) Traditional Knowledge (TK) Study. I understand that “my participation” includes a planning meeting held in June in Dettah, an on-the-land fish health and water quality study at a tent camp near the Diavik Diamond Mine from 31 July through 8 August 2021 and a data verification (report and video) meeting in Yellowknife in the fall of 2021.

I understand that the Diavik TK Panel, the Environmental Monitoring Advisory Board (EMAB), established in 2001 with the signatories to the Environmental Agreement, and the Wek'èezhii Land and Water Board have a mandate to review programs and results from TK monitoring activities. The DDMI AEMP has and will continue to engage local community members to collect samples, make observations and contribute to the design, format and methods of the ongoing aquatic monitoring during the operations of the Diavik Diamond Mine using both traditional ecological and western scientific knowledge.

Through my signature below, I understand that:

1. I consent to have my words, activities and responses regarding and related to my knowledge recorded on maps, in notes and photographs, videos, drone footage, Global Positioning System (GPS) units, and using audio- and video-recording equipment (collectively referred to as Traditional Knowledge Data or TK Data);
2. I am free to choose not to respond to any questions that may be asked without penalty;
3. I am free to end an interview or refuse to participate in an activity at any time that I wish and / or choose to be anonymous in my participation without penalty;
4. My representative Indigenous Organization, DDMI, Barnaby Consulting, Thorpe Consulting Services may use the information collected to contribute to aquatic and fisheries management and monitoring, in the identification of indicators, and inclusion with scientific results, discussions, and knowledge;
5. Camp participants, my representative Indigenous organization, DDMI, Barnaby Consulting, Thorpe Consulting Services and the signatories of the DDMI Environmental Agreement may share my information which I have verified and given permission to share, for example, in either reports and/or video-documentaries;
6. I agree that my contributions to the TK Data may also be used for future educational, cultural, heritage, and environmental purposes that are outside the scope of the DDMI TEK Camp and that my representative Indigenous organization, DDMI, Barnaby Consulting and/or Thorpe Consulting Services will make all reasonable efforts to consult me, or my descendants, before using my information for purposes not indicated above;

7. I will receive financial compensation for my participation in accordance with DDMI policy;
8. While at the cultural camp or in the follow-up review session, I am free to request that any information I share is removed, erased or deleted and that I will have one chance during the fall verification meeting to review draft transcripts, video-documentaries, reports and maps to make edits before I sign them off and that final copies will be provided to me;
9. I understand that DDMI cannot ensure the protection of the TK Data from public release (e.g., via youtube.com, Facebook, other social media, or Aboriginal group websites) once it is verified and released;
10. The TK Data will be summarized and integrated with scientific data into a report, which will be publicly available;
11. The TK Data may also be stored at the following locations:
  - o Inuit of Kugluktuk: Kitikmeot Inuit Association of Kugluktuk;
  - o Yellowknives Dene First Nation: Land & Environment Department;
  - o Tłı̄chǫ First Nation: Tłı̄chǫ Lands Department;
  - o Lutsel K'e Dene First Nation: Lutsel K'e Lands Department; and
  - o North Slave Métis Association: NSMA Environment Department.
12. I have the option of being either anonymous or given credit by name as an author and/or for providing TEK during the cultural camp, in the documentary and final report.

Signed this \_\_\_\_\_ day of \_\_\_\_\_ 2021, in \_\_\_\_\_, NT/NU.

Would you like your name to be used in the video-documentary and the final report related to the TK Data you provided during the DDMI AEMP activities?

- Yes, I would like my name and images to be used in the report and video-documentary.
- No, I do not want my name or images to be used in the report and video-documentary.

Signatures:

\_\_\_\_\_

Participant (Aboriginal Group)

\_\_\_\_\_

Diavik Diamond Mines Inc.

\_\_\_\_\_

Barnaby Consulting

\_\_\_\_\_

Artless Collective



\_\_\_\_\_

Thorpe Consulting Services

**Appendix C – TK Panel Session #13 Daily Notes**

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DRAFT

## Participant List

TK Panel #13: August 5 – 8, 2021	
Nancy Kadlun	Kitikmeot Inuit Association (KIA)
Jack Kaniak	Kitikmeot Inuit Association (KIA)
Vikki Niptanatiak	Kitikmeot Inuit Association (KIA)
Kathy Arden	North Slave Métis Alliance (NSMA)
Marie Adele Football	Tłchq Government (TG)
Lena Drygeese	Yellowknives Dene First Nation (YKDFN)
Kelsey Martin	Yellowknives Dene First Nation (YKDFN)
Peter D Sangris	Yellowknives Dene First Nation (YKDFN)
Joanne Barnaby	Facilitator
Sarah Ravensbergen	Facilitator
Myra Berrub	DDMI
Gord Cumming	DDMI

*\*Regrets: Sarazine Basil, Albert Boucher, Doris Enzoë, Gloria Enzoë Sherring (Łutsël K'é Dene First Nation)*

## Summary of Daily Notes, TK Panel Session #13, 2021 - TK Camp, Lac de Gras, NT

Friday, August 6, 2021 – DAY 1	
Daily Activities	<ul style="list-style-type: none"> <li>• Morning gathering to check weather and review plans.</li> <li>• Morning vegetation watching with three boats to a point close to camp: first vegetation trip of the TK Panel (Vegetation site #1).</li> <li>• After lunch, one boat goes out to sample water near the mine.</li> <li>• Knot tying lesson with Kathy.</li> </ul>
Participants	<ul style="list-style-type: none"> <li>• All, for all activities (except for LKDFN participants who left previous evening).</li> <li>• Interview pairs for vegetation outing as follows (people interviewed each other on recorders, audio transcribed below and some on TK forms in separate document): Kathy &amp; Kelsey; Marie Adele &amp; Myra; Nancy, Jack &amp; Vikki; Lena &amp; Peter. Joanne, Sarah, Jay, Gord, walked around and recorded / listened / participated as needed.</li> </ul>
Key Observations	<ul style="list-style-type: none"> <li>• Weather was too windy to go to narrows, as hoped.</li> <li>• Grizzly sighting.</li> <li>• The group saw plants, berries, and mushrooms at vegetation site #1, including lichen, moss, willow, cloudberries, bear berries, cranberries, blueberries, some medicines, and more. We also saw a siksik, tuft of caribou winter fur, caribou antlers, a mouse, a jackfish head on the shore, grizzly bear scat, trout carcass, ancestor's campsites, caribou trails, and more. Some said the vegetation looked good, healthy, others said it looked dry.</li> </ul>

<b>Saturday, August 7, 2021 – DAY 2</b>	
Daily Activities	<ul style="list-style-type: none"> <li>• Morning gathering to check weather and review plans and discussion of current DDMI vegetation sampling.</li> <li>• Group outing to vegetation site #2 (morning).</li> <li>• Group discussion on TK Panel recommendations (evening).</li> </ul>
Participants	<ul style="list-style-type: none"> <li>• Vegetation watching: Myra, Gord, Sarah, Nancy, Jack, Vikki, Peter, Kelsey, Lena, Kathy, Marie Adele.</li> <li>• Group discussion: all participants (except LKDFN).</li> <li>• Weather was too windy to go to narrows, as hoped. Group wanted to see the vegetation plot (Golder) closest to camp, and wanted to observe the dust monitor gauge above the camp. Gord shared info about how far apart the veg dust places / plots are, lichen and veg sampling (how often, what testing, since when, how the dust is collected – people had lots of questions that he answered, and stated they want to keep being involved, that it is just the beginning for TK input on this topic). Group discussions held in empty tent; kitchen too small, circus tent too cold.</li> <li>• Group decides to go to vegetation plot right outside the CBM, closest to the camp, to look at what scientists are looking at and make comparisons to what they see.</li> <li>• Community members also wanted to walk up and see the dust gauge closest to camp, and generally want to see the vegetation plots set up by Golder / Diavik. Group decides to first see the Golder vegetation plot by camp, and then to do site visit to the dust gauge.</li> </ul>
Key Observations	<ul style="list-style-type: none"> <li>• Some thought vegetation looked good, others thought it looked dry</li> <li>• Many want to take part in future monitoring of vegetation. During the evening discussion, we talked about the importance of considering previous TK Panel suggestions, e.g. filtering dirty water through moss.</li> </ul>
<b>Sunday, August 8, 2021 – DAY 3</b>	
Daily Activities	<ul style="list-style-type: none"> <li>• Finalizing of TK Panel recommendations</li> <li>• Closing ceremony</li> </ul>
Participants	<ul style="list-style-type: none"> <li>• All participants, except LKDFN.</li> <li>• Wind was blowing too hard for planes to come and pick up participants – instead, group discussion to finalize draft recommendations with the view of finalizing them at the Verification session in the fall.</li> </ul>
Key Observations and Recommendations	<ul style="list-style-type: none"> <li>• Sarah introduced the group discussion with the following: We've been looking at two sites, one just there, and one there. Finding cloud berries, cranberries, blueberries, lichens, caribou trails, old caribou trails. Some people are noticing that some of the plants are dry, and they'd like to see how this vegetation looks compared to other places farther away, where the wind is blowing more often. The wind and rain will greatly affect how much dust affects the plants. So we can do this sheet by sheet, I guess, and see if there's any specific recommendations to Diavik that we'd like to make about this topic. And I can write it up here. ... And people talked about caribou eating foods, depending on whether or not it's wet. So</li> </ul>

	<p>they'll eat willows and grasses if they're wet, but their main food would be lichen.</p> <ul style="list-style-type: none"> <li>• Formal draft recommendations were developed:             <ol style="list-style-type: none"> <li>1. Establish rain collection and testing farther from the mine</li> <li>2. Watch where caribou are feeding, then watch plants in those areas (in the mine site area, 5-9 km from the AEMP). Visit sites in summer to watch those plants.</li> <li>3. Ask Rio Tinto Exploration (or anyone operating in area) to watch caribou, especially off site</li> <li>4. Watch for foreign species (plants and bugs)</li> <li>5. Identify insect species that are eating caribou food</li> <li>6. Sample caribou scat to see what they're eating</li> <li>7. Watch outside vegetation plots to note any changes</li> <li>8. Inspect vegetation plots every two years, and also check for metals</li> <li>9. Diavik should share dust collection results with communities and the TK Panel (hard copies too)</li> <li>10. Diavik should share water testing collection results with communities and the TK Panel (highlighting diffused oxygen)</li> <li>11. Diavik should share an update on what species are in the lake</li> <li>12. Diavik should consider all previous TK Panel recommendations related to vegetation</li> <li>13. Monitoring with Elders and youth for over 50 years, watching using both TK and science</li> </ol> </li> </ul>
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## Maps / Resources Shared

- Informed Consent Form
- Evaluation Form
- TK Panel Sessions with Reference to Vegetation – Summary
- Camp Daily Schedule
- PK to Mine Workings Factsheet
- DDMI Vegetation Program Factsheet
- DDMI TK Panel Recommendations (past years)
- DDMI Near Field, Far Field Lichen Sampling Maps
- DDMI TK Vegetation Survey

## Vegetation Watching Sites

Location Description	Easting	Northing	UTM Zone	DATUM	Comments
Veg spots in Bay SW of TK camp (Vegetation site #1, August 6, 2021)	540725	7151301	12	NAD 83	Participants ranged up to 500m away from coordinates observing vegetation.

Location Description	Easting	Northing	UTM Zone	DATUM	Comments
Veg spots next to camp (Vegetation site #2, August 7, 2021)	541128	7152124	12	NAD 83	Focused around the vegetation box immediately to the south of TK camp, coordinates will be exact from the lichen/veg monitoring program completed by Golder. Current coordinates are approximate from GIS.

## Detailed Daily Notes, 2021 TK Panel Session #13, at AEMP TK Camp, Lac de Gras, NT

### Friday, August 6, 2021 – DAY 1

#### Morning Vegetation Watching

#### Transcript of Vegetation Watching: August 6, 2021, 11:00am [Marie Adele, Peter, Lena, Kathy, Joanne, Sarah] - Part 1

-Sarah: "...you said you think people camped, your ancestors, in this area? How can you tell? [close to / around 64°29'7.82"N / 110° 9'55.39"W, vegetation watching site #1]

-Marie Adele: Yes. ... The rocks around, they all have rocks around their tent to keep their tent down.

-Sarah: So if you see a group of rocks, it might be a campsite?

-Marie Adele: Yes, in the form of a circle. ... Caribou trail! First one! ...

-Sarah: Peter, did you see a caribou trail?

-Peter: Yes. See the white stuff [lichen]: caribou food. Food. There too, white stuff. In the wintertime, they dig in the snow. Dig in the snow, and they look for that kind. Caribou food. They like to eat it when it rains, when it's wet. They just love it. It's like steak for them! ...

-Sarah: Do they go here, in one file, one trail, or many-

-Peter: No, just skinny one. The caribou trail. They pass by every year, every year they go about that wide, and every year they go through, the skinny one. Sometimes, some year different, another way, another way. ... They pass every year, wide, or they go all the time, every year. The skinny one, only part of the time.

-Lena: [I found last year's berries] ... you can still eat them, take them. But they just never got picked or dropped. ...

-Joanne: There's some old caribou trails. ... Little sad. They haven't been here for a long time. ... [the trails] they're grown over.

-Kathy: The Inuit, from what I read, when this is blooming in the spring, it's very sweet, they like it. The kids would stick it in their shirt and suck the juice out and then they would eat the pulp after. ... it's a ground willow. [The area] It's looking pretty good actually. I found a bear berry, this one here, it's really nice and green but it's hard to tell if there's dust here. Most of the dust seems to be going that way, not so much this way. Even though we have the prevailing winds that seem to always come this way, it's hard to tell. I think you maybe have to give them a swish with water to see if there's any sediment on them. There's also a lot of cloudberry. I don't see any blooming yet, these ones right here. ... that's all cloudberry, bear berry, there's some cranberry there, a small little cranberry there. Last year's cranberry. And this here, this yellow moss looks like a type of moss that the caribou eat. Although some have died, over there. Apparently lichen is very sensitive to pollution and they die very quickly. So maybe that's what's happening here. See this, this is all dried out.

-Sarah: To be healthy, what does it need?

-Kathy: No pollution. No pollution. I haven't seen this, but it looks like it's [raggenwort weed - phonetic]

-Marie Adele: This is from last year. [Sarah: do they look good?] I think so. ... sometimes when we get rid of it, pick it, they say it grows back a long time. Takes a long time to grow, just like over there, by Diavik mine. ... 20? 50? Long time to come back.

-Sarah: Is this the right size for it to be?

-Marie Adele: I think so. It's from last year. ...

-Sarah: So you can tell by how dry it is?

-Marie Adele: Yeah, and if it's fresh, it's going to be round. ... that's cranberry. They haven't grown yet, look, it's dry this way. ...

-Sarah: You're saying it's small because it's dry or?

-Marie Adele: Because it's young or it hasn't developed. Look at them, there's still coming, this is one here. These are coming, cranberries. ...

-Lena: Blackberries.

-Marie Adele: [phonetic- Tsu-te], that's what they call it. [phonetic: Tsun-te]. I don't hardly see these.

-Lena: Yeah, because they're small. ...

-Marie Adele: These kind there are lots in Wekweètì, they're big at this time. Any time as soon as spring comes, they're there. But these are small. ... it's juicy, want one? We eat these, mix them with cranberries or blueberries when we're cooking, especially when it's rainy. When the women go out for picking berries, [phonetic: tsun-te]. ...

-Peter: See this, it's hard. Hard, but the end of September, they turn soft, like this, this is soft. The harder ones, they're going to turn their colour to this, the soft ones. Every year they go like that. The barrenland over here is too cold, too cold. Around Yellowknife it's warmer for hunting, you go faster. Right now it's too dry around Yellowknife, not here, chilly, too cold. Slow.

-Sarah: What do you think of the lichen here?

-Peter: [Tetsòt'iné Yatié] It's good. Caribou ready to eat! Their food all over, all over the territory.

-Peter: Mushroom, yeah. Barrenland mushroom.

-Joanne: Do caribou eat them?

-Peter: [Tetsòt'iné Yatié] No, they avoid it, because they know there's something in the middle there. Once it gets soft, it's worms or something, bugs in there. Caribou eat only this kind, this lichen. Caribou scratch over it with their fingernails, they eat it. They just love it, caribou food. When it's wet, they like it, they get fat right away. When dry ground, they don't like it. Too dry to swallow. Wintertime, snow on it, they dig for it, they want to eat it.

-Lena: [Tetsòt'iné Yatié] blueberries? Blackberries?

-Peter: Along the creek, the water you see, those little creeks like that, that's where most of the blueberries grows. But there are some spots that don't have any. ...

-Lena: Crowberries, I think that's what they're called in English [Sarah: what eats them?] Birds, and that. Animals in general eat lots of berries, just because they like the juice. Even those small birds he [Peter] says, would poke this kind of dark cranberry, poke it, and drink the juice from it.

-Peter: Yeah this one here, it's soft. They don't take long to get soft with heavy rain. Get soft. Don't get soft right away, takes time.

-Peter: The caribou sometimes when it's raining-it just gets soft. They just take a mouthful like this and just chew on it, they like it when it's raining, wet. They just love it. [Phonetic: geut-so-geu] Caribou food, yeah.

-Lena: I try to spell it in my language. You see a picture of this in your book somewhere of [phonetic: geut-so-geu]. Is that grass right there?

-Peter: That area right there, it looks like it used to be a creek, where there's water. See the ground like this, like that. Creek. This kind of ground there, the moose, they like it. The moose are coming up-they hang around for a long time. If lots of snow, they eat it.

-Lena: He was saying that earlier, that lots of moose are coming up this way now towards the north, towards the barrenlands, because the trees are getting burnt from forest fires below the treeline and further south. There's always forest fires, so they have nowhere else to go ... there's other things there too like buffalo, bears, so they start going further north. They are starting to come around the barrenlands now, past treeline.

-Sarah: Did he say if that affects caribou at all?

-Peter: They're friends, hey. They're not scared of each other, they're friends. Barrenlands, lots of caribou, big herds, to the treeline and MacKay Lake, you see the moose there. The moose dig around for food, the caribou too. They get there and they eat. They dig around for food in the wintertime, in the snow. They're friends.

-Joanne: Siksik!

-Lena: [Questions from vegetation sheet, Tetsó't'iné Yatié]

-Peter: You got to know lots of different things about this country, and they've got lots of different names, too. Different names. We learn that from old timers, the names they tell us. You have to remember.

-Lena: [translating and talking to Gord] They dig this stuff up and they chew on it, and they would dig this up in the early winter, dig this up through the snow, because their food is covered. And normally they would eat this kind of lichen, the caribou would eat this kind.

-Peter: If you see this kind a lot, this kind here, lots here, then here's nothing. If you see lots of this kind, caribou scratch it with fingernails, they get a pile up, chew. When it rains, they just love it. Same thing with this one too, a big pile on the land. When it's wet, they scrub it, it's like T-bone steak for them.

-Lena: I'm going to ask the third question now, how does the dust affect these plants?  
[Conversation in Tetsó't'iné Yatié]

-Peter: There won't be too much around this. The mine is over there and the wind is mostly from the north, northeast, and southeast, not much west wind. Wintertime, not much west wind. Just in the summer. So the mines, the smoke blows the other way, that way, towards the west from the east. Not much wind from the west to the east. So there's not much around here.

-Lena: So we're on the east side here?

-Peter: Yes. North over there. [Points] Northeast, east, east south, south, south west, west, north, northwest. Yeah, we know.

-Sarah: So that side [west side of the mine] is more dust?

-Peter: Yes. Northeast, where are the camp is. From where you sit right now. North over there. ... you get a lot of something, the more you work, the sun come up and you know where you are.

-Lena: You can tell what time it is from the sun, noon time, high noon they call it. ... moss, [phonetic: qua-ha-ney]?

-Peter: Yes.

-Lena: Moss, spongy. You use it for pads, and for baby diapers. He said, you can use it for pillow [laughter]. So he was saying that the wind always blows northeast?

-Sarah: Wind blows north, northeast with the dust, Peter?

-Peter: Yeah, north, northeast. ... sun come out, over here, you know ... you got to know. Clear sky, you go by the sun.

-Lena: [Tetsó't'iné Yatié]

-Peter: Soft. Healthy. Rain is like a wash, it wash the land.

-Lena: [Tetsó't'iné Yatié]

-Peter: It means, the caribou, in the wintertime when there's lots of snow and that, they prefer to be on top of hills because the deep valleys have too much snow. Like right there, some place open, like to hang around on top of hills. Hang around a couple days and then next one, go.

-Lena: He said, all over the tundra looks the same, and has food for caribou-that's why caribou live up here-for the food.

-Sarah: So he's saying, they go where the good food is?

-Lena: Yes. They know.

-Peter: Just don't look one place like that-keep your eye moving all around, once in a while, look good, if there's some big animal coming or something, you see, you move. If hungry, it'll try to get you ... it's just like jungle animals hunting their prey, like a tiger ... same thing. Always watch. Old timer people talk to young guys like that, tell them, young guys, when you travel on barrenlands alone, you think about your grandpa told them. Keep in his head. Some, they don't care. Some young guys like that. You have to tell them over and over again.

-Lena: [Tetsó't'iné Yatié]

-Peter: Monitor the changes in these greens, the berries, and anything that is growing on the land, and lichen for the caribou that is here. If you see if drying up, it means the weather is changing, there is hardly any rain. But if it's green like this right now, there's some rain over the summer nights. So if there's been rain off and on, off and on, it's going to grow

good. But if isn't hardly rain, it's just going to be dry, yellow, and it won't be food for wildlife to feed on, especially caribou. Because you've seen that caribou trail, right. So they do come this way to feed. But it looks really green, lush.

-Sarah: If there's dust on the plants, how does it change the plants? Would caribou eat those still if they had dust on them?

-Peter: Again, it depends on the weather. So whichever way the wind is blowing, it would blow dust all around, like you've seen before from the camp, you're standing there and there's dust. So if the wind is blowing this way, it would cover these. But when it rains, it washes it all off, the rain drops here are huge. So the dust would fall off. But it's not saying that the land is going to be healthy all the time. Because it depends on the weather.

-Joanne: And if it goes into the soil-

-Lena: It would affect the growth of it.

-Sarah: Are caribou very particular about which ones, do they eat ones that have dust on them?

-Lena: Yeah, they wouldn't even lick it if they see something different, like white on it. It's green like this, right, but if they see it pale, pale, almost white, they would sniff it first before they try to eat it, and maybe a bit of dust go up their nose and they walk away from it. Would you be interested in participating in future monitoring? ... only now he realizes you're taping! He wants a bonus! [Tetsó't'iné Yatié]

-Peter: If my knees weren't sore I would be walking everywhere. [Re: the recording, the interview-] You learn a lot from that, mark it right. ...

-Sarah: We talked about this before, that species sheet that is for fish, we could do something like that for plants?

-Joanne: Yes, but we would need to use photographs so we know we are talking about the right plant at the right stage. ...

-Lena: See this kind of roundish part? It looks like a camp of some kind. Right there, too. ... maybe they move to a different place depending on the animals and the plants. Like Peter says, if it rains lots in a certain area, lots of plants, berries grow, so people would always keep a lookout like he said, on the horizon, for animals, for everything. So if you see-you watch the weather. If you see it's raining way over there, then when it's a clear day, they would know to walk there to see if there's any berries or anything, these things they can use for fire, you roll it up and use it for fire. Always watching the weather, watching the horizon, all the time. You watch the clouds, which way the weather is blowing, it's always got to be something to do with the weather. Even right now, you notice which way the wind is blowing. Then you stop and you smell something once in awhile, and there might be another group of people over the hill making a fire. If you smell fire you know there is

people around. You always have to be aware, have to use your eyes, your mind, your nose, your senses, your feelings, your touch. ...

-Sarah: Do you like being out here?

-Marie Adele: The air is so clean.

-Lena: My nose is so clear. [Sees plant-] The end of the season I guess for the that plant, maybe it wasn't getting enough water. There's more here [caribou scat] so they've been all over here. Over there too, you could see it.

**Transcript of Vegetation Watching: August 6, 2021, 11:30am [Nancy, Jack, Marie Adele, Peter, Lena, Kathy, Kelsey, Joanne, Sarah] - Part 2**

-Lena: ...young hunters and young men, men would take their young sons to give them the experience of hunting. So the women would stay home, take care of the children. There's a story that my grandmother Marie Adele Sangris told me one time. She said, my husband and my son, first son, were out hunting and trapping for caribou, they were gone for a long time. To me, it was a long time, but it was only 2 weeks time. But in the meantime, while the men were out on the land, she said that we had to set nets under the ice, put up the willow nets to catch ptarmigan, we have to put rabbit snares up, and get wood, if our husbands didn't get wood for us before we left, we had to do it. It was a lot of work for women, even though they are home. You think that women don't nothing to do at home, oh boy. And then they sew, sew for families, make mukluks, whatever, things for them to wear for the winter months, mitts. ... If there's kids around, kids get into things too right...

-Marie Adele: There's blueberries, and one right there.

-Sarah: Are blueberries your favourite?

-Marie Adele: Yes! And then later on, cranberries. They should start now. I did see the ones from last year, but the ones from this year, spring, not quite. ... Recently my granddaughter [comes berry picking sometimes. Sometimes there's only two of us. ... it's good when the Elders get to come out and see, look around. One day we got up and she was looking around, and where these guys were standing, there was a bear walking. ...

-Sarah: Do you want Diavik to monitor plants, going forward?

-Marie Adele: Yes, yes. Even after they close. How many years that mine been going, how many years? That's as long as they should monitor for, or more. Twenty-five, or more.

-Sarah: How would you like to see them monitor it?

-Marie Adele: The same thing they're doing, fish, water, lakeshore, make sure things are back, green.

-Sarah: Check the plants at site to make sure they are coming back?

-Marie Adele: Yes. I want them to make sure they don't leave anything at all, no matter what. ... I smell the gas [from the site]. They brought everything in, all the equipment they brought in, it would be easier for them to bring it back, since they have winter road.

-Sarah: How could Tłchq people be involved?

-Marie Adele: You can always do more. Talk to them, talk to them, make sure we go to meetings. Even our Elders that started with the mine, going to meeting after meeting, so they carry that, their son in law or grandkids. That's how our grandkids, young kids, they should continue talking to them about it. Keep talking about it and make sure they bring them here. And look around and make sure that Diavik is healthy again. ...there's a seagull! [Marie Adele and Sarah hide behind a rock] Even in the centre like that, they just sit and lay, look for hours and hours, see if they can spot caribou. ...

-Kelsey: Found a piece of caribou antler! ...

-Sarah: How's it going, Kathy?

-Kathy: Good! Seeing lots of the same things.

-Sarah: Do you like what you see?

-Kathy: Oh yeah. ...

-Peter: Some of the jackrabbit too, ptarmigan, it's over a year old [points to caribou scat]. Some jackrabbits, they hide down by the creek, somewhere with lots of bush, they hide inside the bush. And then only at the nighttime, they show.

-Joanne: Peter one time I was at Diavik and we saw them boxing.

-Peter: Yeah, they do that! I see that a little bit. They're boxing, they stand on two feet, their hands free. They want to find out who's champion! ...

-Sarah: Nancy, did you find some berries?

-Nancy: A few. And it's so dry.

-Joanne: There couldn't have been much rain, hey?

-Jack: No.

-Nancy: Crunchy ground. ...

-Peter: Next one, September, turns yellow. Not much rain in summertime, dry.

-Jack: Beecher Lake, not far from here... we were living, trapping... I was small. ... all the people that were up there, so many wolves. Sometimes when you wake up, you see trails, and wolves going by. There's so many wolves in early fall. And caribou just go through there. .... I hunt wolves, I'm a wolf man. But not anymore. ... one time I was chased by a bear in the summertime. ...

-Nancy: We were camping, it's a bay like this, a channel. ... next thing I see way down, he jumped on a boat and took off! Had to, didn't want to shoot him...

-Joanne: Peter pointed out that rock over there, he said that people put that on for the-

-Jack: It's a marker of some kind.

-Nancy: A fish marker! That's a fish marker. ... when the water was up to here... even in the higher spot. The water must have been there. They line them up where they fish, because people don't have radio, they would tell you, if you see a marker like that, it's pointing, that means there's fish there. ... if they see a rock like that, they know there's fish. You see this rock and you know there's fish. That's so cool! ... it's pointing toward their fishing spot. ...

-Sarah: Do you have something similar in Kugluktuk?

-Nancy: Yeah, but not right in town, everywhere on our land. Because people go hunting and fishing, sometimes people travel and if they see, they go fishing there, catch fish there so they have food. Really awesome. I think I'm going to enlarge this and hang on my wall. I always wanted to see this because I've heard so many stories of them. So you see one like this, you go fishing with their fishing hook, or winter time you would make a hole and fish.

-Sarah: How does it feel to be out here?

-Nancy: I like to come here, because I want to know how it's going to be in the future. ... I always talk to my kids, my children about the land and everything. My son is 22 year old and he is a hunter now, now that his dad's getting old, he took over. ... he's really learning to do everything and anything. He don't eat caribou and geese, but yet he really like to catch more! ...

-Sarah: What's your favourite to eat?

-Nancy: I don't say I have favourite because I eat anything and everything. I don't just eat the same thing all the time. Even if I'm out here I don't eat the same thing every day ... my favourite thing is dried caribou meat with duck fat. ...the cranberries, they'll be ready in September.

-Sarah: Does it look healthy around here to you?

-Nancy: Dry. Everywhere is the same now, dry, hardly rain here maybe this year. Everywhere yeah. Getting dry everywhere. I'm so happy to see this [fish marker], Inuit people fishing here one day.

-Sarah: Do you think they would choose a special rock or?

-Nancy: As long as the pointing part is longer than the back... I'm pretty sure people lived here long before, because it's a migration route for caribou. And lots of fish. ... migrating this way, or this way, on route [to and back from treeline], big herds. Our Inuit from down

there have been here, we know that from this rock. I know there's all those-how many people find Arctic tools here, many. Mostly arrows.

-Sarah: When you were here in previous years, did you look at plants around the camp?

-Nancy: Yeah. But we were here later.

-Sarah: Any big changes, like you see in the fish?

-Nancy: Big change, no. Hungry fish, all hungry fish, there's no food in there stomach. Only in three years, there's no food in the stomach. All hungry fish. I would really like to come in September and fish myself, and catch one fish and check their stomach. I think there's a problem here. I think there's changes, because all the little fish should be all over in September, and the fish will be eating off them. If their stomach is still the same, that means they're starving, they're all starving. ... It is very hard, these fish, this lake, goes to Kugluktuk and the river. That's our water, that's our only water, from that river. ... You can learn lots from anybody. Learn everything every day. Learn lots every day. Even from your kids. They're smart too. ... it's like if we're already talking, when I said I'm only talking to you. Our voices need to be heard on our land. Especially if we are getting video-d, we have to put our voice out for the future. Sometimes we talk about caribou. Vikki, when she first started hanging with us, she said Nancy, it's like you're always judging. And I said, I'm teaching... I'm trying to help. And she said, oh! ... if I'm out like this for questions, I don't get tired. Sometimes I will talk and talk, especially to my kids, because I want them to grow to be strong. All of my boys are very shy, really shy, but the more I talk to them, the more comfortable they get... I also talk to them about being out on the land, because it's not going to be easy one day to try and live in a city or town. You've got to rely off our land too. So I talk to him a lot. Now he's taking over hunting this year. ... the way I was taught, I never go to school, because my parents-I'm the youngest of seven. They said, we'll keep you because you're the youngest and we need your help, we'll teach you, which I'm proud of today. I'm happy I can teach my kids, who can help me when I'm not moving anymore, because I like to go on the land. ... You can learn from anybody, especially your Elders, because they want you to know everything. ...

I'm glad they [Diavik] is listening to what we told them to do. I can see the rock pile is getting smooth [North Country Rock Pile] because they can't put it back, so at least they're smoothing it. I don't think that they [Diavik] will leave this ground. I would always say, they want to leave, but next thing they're going to want to drill over there, because they might have more over there. They're only going to say, we're just going over here. I think they're going to move somewhere else, than that part [points to current pits]. That's why we try to see-how can they destroy so much, just to see if they're going to listen or not? ..."

### Transcript of Vegetation Watching: August 6, 2021, 11:30am [Marie Adele, Myra] - Part 3

-Myra: "What do you smell?"

-Marie Adele: What do you call that ... it starts with L, that's the smell. ... always in Wekweètì it's longer. When I look at these, they're shorter. There's two kinds. These have two-when my son got diarrhea, really bad, my husband went out, got it, boiled it, give them a teaspoon. ... bad stomach ... So we make tea with that and give him a teaspoon because he was still young. Keep doing it, all day. ... you don't pull the root, you just bring a handful, pick it. ...

-Myra: How do you say it?

-Marie Adele: Say [phonetic: ee-tlo] ... kind of curl up your tongue. ... it's not only the caribou [on the trail at vegetation site #1], it must be a wolf. Many holes here. Sometimes in the old days when people travel like this, there's always water in the rock like this. Water there, and they drink from it, when they're walking far on the land. But right now all these are just dry. That's why they do, if there's water, they drink from it. ...

-Myra: Here too, there's mushrooms.

-Marie Adele: There's one big one over at-across from it, a big mushroom, just by itself. ...

-Myra: Do people eat those?

-Marie Adele: Just the ones that they know are good to eat. Because one time Father Amorous came to Wekweètì to visit, he stayed with me, and he always goes out on the land. I know he'll be back, and then he bring back mushrooms! He cuts it up, and cooks caribou meat with it and he eats it. And then I let him do that for about three days, and then the fourth day he's okay so he offer me and I said okay [laughs]. I should have walked with him and he would have shown me wish one he was picking. ... I just love mushroom. Not from the land, but the store. We just buy it from the store. I don't know if it's good, so I'm scared to pick mushrooms off the land.

-Myra: Is it traditional to eat mushrooms?

-Marie Adele: Maybe it was but right now we get everything from the store. We have to teach ourselves how to cook mushrooms, it's good. Father Amorous was picking the mushrooms from our community. ... I'm very happy to walk on my ancestors trail, and I know my dad is here somewhere, maybe I'm walking in his footsteps, or my grandpa. [Phonetic: zin-dee], very beautiful. ... these are all from last year. This is blueberries, look! Blueberries.

-Myra: Is that from this year?

-Marie Adele: Yeah, looks like it, yeah. If it's from last year, they would be soft and wrinkled up.

-Jack: ptarmigan and golden plover – these birds are also missing from the area, they should be around but he hasn't seen them. He also observed some birchwood, some more yellow / orange and is dying off, seems like more than usual is dying early, but not sure if natural or not. Showed plant samples he picked, have pictures.

## **Saturday, August 7, 2021 – DAY 2**

### **Morning gathering to check weather and review plans and discussion of current DDMI vegetation sampling**

-Joanne: As you can see, the weather turned again, north wind today, stronger today, not so warm. We're back to the drawing board, changing plans. There's still a lot of work to do: we can look at collecting more water samples, testing them, finish the tasting from last night for water. We would like to look at more vegetation, so there are some options there, and we would like to finish the recommendations re: vegetation for Diavik.

-Gord: Re: anything realistic for vegetation, we can't get to the narrows today. It's blowing 17 knots, over 30 km/hour, from the northeast. Only vegetation plot on this side of the lake is right behind the camp. The others are around Diavik. To get to them, we would have to be in the northeast wind, likely not a good idea.

Joanne: Are there plots or areas that are different than where we went already? Where the landscape is different?

-Gord: Yes, but can't get to. Too exposed. And we [as a group, community members and Gord, re: discussions in previous few days] wanted to look further from Diavik to compare [with places close to the mine]. I can take people along the bay, out towards Diavik, we can do that and maybe go into the next bay. But it will be very windy and exposed. [Jack: It's too windy.]

-Gord: Yes, hard to get anywhere today. We could go right outside [to the plot just beyond the perimeter of the CBM bear fence] but it will be very similar to yesterday's plot, because it is very close by.

-Kathy: Gord, have you seen those plots? [close to the mine] [Gord: Not many.]

-Kathy: I read the sheets and they have found more grasses in those plots. But yesterday we didn't see many. Maybe at the area close to the camp, that's where they saw more grasses? Where have they seen more grasses?

-Gord: Close to the mine where more dust is on the vegetation, than further away. They compared this to other studies and the same thing has been found on highways. It's related to dust fall.

-Joanne: Any foreign species found? [Gord: No, they are local species of grasses]

-Joanne: There was concern about invasive grass species. [Gord: They haven't found any invasive species so far]

-Jack: What about bushes, willows, same thing? [Gord: Same as lichen-they are affected close to the mine but not so much farther away.]

-Joanne: Birch, willow, we saw lots of it was dying yesterday. Not clear why?

-Myra: Back to grasses, is that something caribou feed on?

-Jack: Caribou eat lichens, mushrooms, birchwood leaves.

-Peter: Sometimes they eat little willows, grass, if it's really wet, if it's soft to eat, if it rains, then they probably would. [Gord: Grizzlies round site eat plants, forage around the site.]

-Peter: It's the smell that they sniff out, if there's a north wind blowing, and they are in the south, and smell something, then they sniff out what it is-both bears, and caribou.

-Jack: Birchbark willow grows all up here, they're low [saw them yesterday].

-Joanne: Those are the ones that look like they were dying [that community members noted on day 7]. [Kathy: They are quite common here.] ... Re: water tasting, do we want to try and do more, and if so, where?

-Nancy: Last time we used a kettle on the fire outside, it stops the water from tasting like smoke [Discovery did not provide a kettle this time, so a pot was used – participants not happy with this]

-Joanne: Last time we did plain, cold water for tea, two sets of questions per sample. And either boiled or tea, so that's 3 samples from each.

-Peter: There is clear water by the narrows. We should be concerned about water right by the mine, we should focus on that. ...these people up there [Nunavummiut along the Coppermine River] are drinking the water, so we have to really test it good. Anytime there's mines anywhere, there's always pollution around it.

-Joanne: Peter do you want to test the water again?

-Peter: I don't really want to go along [in the boat, because of the wind] but if you keep water testing, I would be satisfied you're actually testing the water. [Recommendation to test/sample the water near the mine]

-Joanne: We will go over the vegetation and lichen survey sheet with Gord now, and talk about any changes we might want to make.

-Lena: Is it every 5 years for sampling vegetation? [Gord: Yes but every 3 months for dust. Biologists do vegetation (Golder consultants) sampling, as well as the small spiny sculpin study, but the environment team at Diavik do all the water sampling every year and on the mine site.]

-Lena: How often do you go out on the land? [Gord: We watch wildlife close to the mine but don't scare wildlife from the helicopter. Lena: You should be out there every day.]

-Gord: We are. We have two full time environment technicians and there are four technicians available at any time to do sampling. The summer is busy too, we have several different projects related to closure.

-Jack: Are there dust studies that are being done at closure? [Gord: Dust, yes, but vegetation is done every 5 years. There is a trigger in the dust program, if any dust threshold is reached, this triggers a vegetation study the next year. We also wanted to give time for the lichen to regrow, this was the rationale for leaving several years between vegetation studies. But there has been a reduction in the sampling time, it used to be done more often.]

-Joanne: Is the reduction in sampling time related to the amount of blasting? And why were metals going over the threshold?

-Gord: Yes, we are seeing the dust going down because we are putting out less dust than before because of the mine moving underground, exactly. That's why we put a threshold too, because we know dust affects vegetation.

-Kathy: I have a comment on water, in 2020 it was noted there was increased nutrients, and more small plants and bugs in the water. That's what we noticed yesterday, more small bugs and plants in the 1 and 2m samples of water, so it's fitting that we saw that [and can compare this to the data that Diavik collected on this in 2020].

-Peter: There's too many in there, they're playing a hockey game, it looks like that because of the way they move. It's not really true, but it makes people laugh. If the bugs from the water get bigger and bigger, and moose come here to the shore to drink the water ... there will be bugs in the moose's body. Bugs can kill a big animal like that. Even though the moose is a tough animal, if little bugs collect in the body ... it can eat away [at it], get caught in the sides of the throat of the moose.

-Gord: There is more bugs than before, but they are the same bugs. I haven't seen reports of dangerous bugs but I trust you know more than I do on this. [Were there baseline studies on the water before the mine started?] Yes. They tested the water first, we know how it was before.

-Jack: The water in the middle of the lake looks really dark. The closer you get to land, the more you see, but it's not as clear as barrenland water usually is. When you get to the shore you can still see what's in the water, but it's not as clear as it used to be.

-Gord: We are seeing lots of tannins in small lakes and streams this year because of the flooding, it makes the water a different colour. We have so much rain this year so we do notice a different colour, and all that water comes into Lac de Gras.

-Jack: Are all the little lakes being tests, on the west side? [Gord: Yes. We have dust monitors set up too.]

-Peter: There is not much west wind, hardly any west wind, wind southeast mostly. Sometimes southeast wind for one whole week, west wind never blows like that [Prevailing winds and weather matter a TON for effects of dust]

-Jack: Has there been big changes in the water column, Gord?

-Gord: Can't say, but it's quite tea coloured [re: the tannins]. There are chemistry tests on those lakes and streams, the reference lakes and streams. I can't remember the chemistry of those.

-Jack: Can you tell me if there's more stuff coming down those streams? Anything about the toxicity?

-Gord: I don't know. [Information request for Gord, data for those reference lakes requested]

### **Group outing to vegetation site #2 (morning)**

#### **Transcript, 9:30am**

-Vikki: [To the group] Number one, is the vegetation in this area healthy? How can you tell?  
– Reads out all questions on sheet, all answers carefully recorded in watching sites table below]

-Kelsey: What do you put in that container? Any liquid? [Gord: No, just that brass tube. Just use water, when we bring to the lab, we use distilled water to get all dust out of it ... then in winter, it gets filled with snow, we take it to the lab and melt the snow and filter it to get the weight of all the dust.] ...

-Kelsey: It has a silvery, grey colour in there, what is that? [Gord: They are over a decade old, it's just probably getting rusty.]

-Jack: So that dust doesn't show up in your samples then? [Gord: We don't sample these for chemical analysis, it's just for the weight of the dust. The rust on them isn't that big of a deal, doesn't affect the weight of the dust. ... it's just the weight of the dust. ... they aren't any measurements in the dust tube, we take it back to the lab and weigh it... we do an calculation to see how much dust is deposited per day or per period in the year. At the end we can put all that information together, from all four quarters, and get an idea of the total dust deposition per year.”]

**Group outing to vegetation site #2 (morning)**

*Survey answers were transcribed from audio that was recorded throughout the group. Participants stood together with their community members to answer questions, but questions were asked to the group as a whole by Vikki (from the updated TK vegetation form, with community input). This information is recorded in the table below. Audio has been combined with written answers to TK forms in the table below.*

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Table 4: Summary of 2021 DDMI Vegetation Survey Results	
SITE / FIELD TRIP # 1	SITE / FIELD TRIP # 2
<b>Q1: Is the vegetation in this area healthy? How can you tell?</b>	
<p>“Very good - some plants die off fast when colder outside. Right now all vegetation looks healthy.” [Written observation, Peter, YKDFN]</p>	<p>“My observations overall, they all look very healthy. ... Overall, they all look healthy, they’re growing. The berries, I see new growth. There’s not much lichen, I’ve seen some lichen that’s dead. Overall the grasses, mosses, look healthy. The smaller vegetation in there looks healthy, and there’s berries growing. Overall I would say it looks healthy.” [From audio recording, Kathy, NSMA]</p>
<p>“Everything looks dry.” [Written observation, Marie Adele, TG]</p>	<p>“Things grow at their own pace here. Even the berries are not that ripe yet, they are still enclosed. It looks healthy right now, the way it looks now, the lichen. The moss looks good. Everything looks like it’s growing the way it’s supposed to, because everything grows slow in the tundra. ... It’s growing the way it should look.” [From audio recording, Peter, YKDFN]</p>
<p>“For the most part, some lichen dying, cranberries just starting, lots of cloudberries, none bearing fruit yet, not much berries.” [Written observation, Kathy, NSMA]</p>	
<p>“Looks healthy from recent rain (heavy and high winds)” [Written observation, KIA]</p>	
<b>Q2: Would caribou like the vegetation here? What plants or lichens would caribou be attracted to?</b>	
<p>“Yes. See pictures.” [Written observation, Peter, YKDFN]</p>	<p>“There’s not much caribou vegetation here. I see no mushrooms, the lichen is very sparse, which is what the caribou are attracted to. I don’t see any willows. There is a little tiny birch, don’t see too much of it around here. I don’t think the caribou would be attracted to this vegetation here. ... Nothing in caribou trails, I don’t think they come to this area very much, it’s very wet.” [From audio recording, Kathy, NSMA]</p>
<p>“If they're hungry they'll eat.” [Written observation, Marie Adele, TG]</p>	<p>“When they go on their migration route, sometimes they travel fast, and sometimes they are slow, they just look around for their food. And then as soon as they have little bites here and there, they go on again. It’s up to the caribou. Caribou is the boss.” [From audio recording, Peter, YKDFN]</p>
<p>“Possible, not lichen or mushrooms.” [Written observation, Kathy, NSMA]</p>	
<p>“Yes, yellow / white lichens.” [Written observation, KIA]</p>	

SITE / FIELD TRIP # 1	SITE / FIELD TRIP # 2
<b>Q3: How does the dust affect these plants?</b>	
<p>“Depends on which way wind is blowing. We are on Northeast. Wind blows north-northeast with dust from Diavik. [Written observation, Peter, YKDFN]</p>	<p>“The dust affects the lichen. Lichen is very sensitive to dust, and they’ll die off pretty quick. Other plants I don’t think are affected as much by dust as the lichen are. Like the birch, the broad leaves, if in a rain the dust will get washed off, grasses like dust, they grow along those roadsides and they thrive in those kind of areas, so they’re doing quick well. There’s quite a few grasses, lots of grass in here, I think that’s natural though for the area. The moss is looking pretty good because it’s moist in here, I think they’re happy right where they are. There are a lot of cloudberry in the area because of the moisture. They are all coming up now. Not ready to pick. I’ve seen a few cranberries coming out. They’re small, but green, and crowberries as well. I imagine, I think caribou would like to eat some of the berries as well. I don’t know how far the cloudberry go in here, but in this plot, there’s quite a few cloudberry all over the place. Overall, I don’t think there is enough food here for caribou, because their main diet is lichen or mushrooms, and I don’t see any in here much.” [From audio recording, Kathy, NSMA]</p>
<p>Dust affects lichen greatly [Written observation, Kathy, NSMA]</p>	<p>Peter: “If the wind blows this way and the dust falls in this area right here, when it rains, heavy rain, it kind of washes away the dust off the plants. But if it doesn’t rain for a long time, it dries up.” Lena: “By the way it looks right now, it looks like heavy rain, with the grass growing. But the only thing is the berries, the cloud berries should have been opening... they open lots of rain, sunshine.” [From audio recording, Peter and Lena, YKDFN]</p>
<p>“Dust (man-made) different” [Written observation, KIA]</p>	<p>“Heavy dust will cover it and keep plants from breathing. But if it’s light dust it will easily be blown away... washed away.” [From audio recording, Jack, KIA]</p>
<b>Q4: How much food is there in this area for caribou?</b>	
<p>“Lots and covered grounds. Good quality” [Written observation, Peter, YKDFN]</p>	<p>“Not much, the lichen is very sparse and few between. No, not much food in here. The quality is good, but there is just not much of it at all. It’s-no, they have to consume a lot, and the lichen is very thin and sparse, spread out all over the place. It’s not in nice big clumps like you can find sometimes, see how that’s gathered up over there? They can get bigger than that and they can come-it’s too sparse.” [From audio recording, Kathy, NSMA]</p>
<p>“Lots; looks good” [Written observation, Marie Adele, TG]</p>	<p>Peter: “Yes. There seems to be a lot of lichen for caribou. When we’re looking around there seems to be a lot in this area.” [From audio recording, Peter, YKDFN]</p>
<p>“Very little, poor quality, lichen spread out and thin” [Written observation, Kathy, NSMA]</p>	<p>“...seems to be a small plot ... this little plot, there’s some caribou food.” [From audio recording, Jack, KIA]</p> <p>Marie Adele: “Ice ... permafrost, there’s permafrost under it, it melts a little and you see it.” [From audio recording, Marie Adele, TG]</p>

SITE / FIELD TRIP # 1	SITE / FIELD TRIP # 2
<b>Q5: Are you seeing similar changes here as you are in other parts of the tundra?</b>	
<p>“Hardly any changes that I’ve seen so far. All over tundra looks the same and have food for caribou”                      [Written observation, Peter, YKDFN]</p>	<p>“I’ve never been on the tundra before. Judging from where we were yesterday to here, there is more moisture here in this area, so the plants are looking pretty healthy. The lichen in the other areas too was very sparse, there was also some dying over there, you see big clumps of it that were dying. I think there are changes between this and the place we were at [yesterday], about 4 or 5, maybe 7 km from here to the bay, back in the bay. There was more berries there, blueberries, cranberries were starting, bearberries were starting, crowberries were just starting, and here you can see some crowberries that are just starting, but there’s lots of cloudberry. Those are the differences, I couldn’t tell you about similar changes from the past, because it’s my first time on the tundra. Thank you.” [From audio recording, Kathy, NSMA]</p> <p>“Sometimes the temperature changes, it gets really hot, too much sun. And then the water will be literally drained down into the ground. And then the ground will get more water. The permafrost too is under this mossy ground. So if the ground stays wet with the rain, everything will kind of grow. That area we went to yesterday, there seemed to be like this year, when there was lots of caribou lichen. It’s almost the same, because we are on the same area. Seems to be similar.” [From audio recording, Peter, YKDFN]</p> <p>Nancy: Yes, similar changes to what we saw in previous plot. Jack: “Yes, similar...” [From audio recording, Nancy and Jack, KIA]</p>
<b>Q6: How would you recommend Diavik monitor vegetation and lichen going forward?</b>	
<p>“I think Diavik has been doing a good job right now monitoring vegetation. Number one, lichen grows very slow, and they monitor it I think every 5 years, so that gives it time to see a difference between if there is something wrong with it, young stage to 5 years down the line, and also testing for metals and other pollutions that might have affected it. I think the five year plan for lichen is good, as well as for other vegetation. I think they are probably doing good as well, because a lot of these are-the willows are tough, the grasses are good, they’re growing all the time. If they come and they check for the berries, which berries are growing in the area, I think they are doing a good job. [Vikki: They could also look at caribou migration too?] Yeah, the vegetation, that would affect caribou migration as well. I’m sure they’re looking at that. But right now with the mine, I’m sure there has been a lot of damage to the lichen. We have seen a lot of mushrooms-I wouldn’t say a lot. We have seen mushroom growth 7km from here which is a good sign, because they’ll eat that in the winter. They’ll only eat it in the winter. I think when they’re moving around in the summer, they’ll be eating a lot of lichen, maybe even some of the berries, the cloudberry. I think they’re on the right track for monitoring vegetation and lichen, because lichen grows slow. You can’t monitor it every year, you’re not going to see a change. You’ll just see slow growth, you want to make sure you see a difference. So I think the five year plan on lichen is good.” [From audio recording, Kathy, NSMA]</p> <p>“After the mine shuts down, they should still continue doing the monitoring, because it takes a long time for everything to grow back the way it was. But I don’t think it will be the same, this area, because we are so close [to the mine]. Everything will change, the climate, it could get more hot, things could start drying up, even the permafrost underneath here could start melting, and things could change.</p>	

Maybe one day, we won't even have lichen here, we don't know, because things change. It takes a long time to grow back, for the lichen to grow. So it's really hard to say how it will look. But the monitoring has to continue, long after the mine is closed. Lena: He hinted at saying we need to work together to do the monitoring. Gord: What do you think about doing this program every 5 years, is that acceptable? Lena: It's too long ... [translates] Peter: Every two years. Lena: Every two years, he's suggesting that. But it depends on the weather too, every two years he said. Peter: We have to always think about the weather too, the sun. If there's been no rain for a long time, everything is going to dry. We have to be consistent, every two years monitoring would be really good, to make sure that as we go along with climate change, we keep track of how things are growing. Because if there's no rain and only sun every day like this... Gord: What is a good weather year to you? Peter: June to mid-July, if it rains, not every day, but if it rains, everything will grow the way it's supposed to grow for the animals to feed on. The animals will be healthy too. We're on the right track [for August]. Around maybe up to the end of September, everything will be fine according to the weather. As soon as the wind blows more and more, north wind, it gets colder, and then things will slowly die, the berries, the grass turning yellow. Everything depends on the weather." [From audio recording, Peter, YKDFN]

Jack: "Same thing as going on now, especially their constant studies..." Nancy: Make sure they are testing often ... every 2-3 years monitoring is good. Jack: "Plants need to grow for the animals, especially in August, before September comes and it gets cold." Jack: "In terms of a good [weather] year, lots of water and wind blowing the dust away, and the sun. Rain, wind, and sun – these are the factors that matter for a good weather year [and therefore effects of dust on plants]." [From audio recording, Nancy and Jack, KIA]

**Q7: Would you be interested in participating in future monitoring? If so, how?**

"I think through the TK camp is fine with me. Maybe if I retire in the next year or two I might be more interested in coming out, but right now I am still employed, so I don't think it would be-I don't think I would be able to be more involved right now. But maybe once I retire, if I'm still in good shape. [Vikki: What about when it shuts down?] Oh yeah, I want to come back and see what the differences are, for sure. Definitely, see what new growth is happening, I know that they were thinking of doing a reseeding program using the natural plants that are here. Some people said just let it grow back on its own, don't touch it. Other people said no, we want you to plant seeds from the area, and they are being stored for planting after the mine closes. I guess it's a matter of whether we replant, or let it be. [Vikki: So you as a plant person, would you come and back?] I would love to come back, and yeah, possibly if I am still in good shape [I would like to com back to help replant plants] and have my legs working, I'd love to. [From audio recording, Kathy, NSMA]

"Yes, I wouldn't mind taking part in future monitoring programs. I would like to take part. I like what we are doing right now, me observing and then talking about it. That's what I would like to do. Mahsi" [From audio recording, Peter, YKDFN]

"Yes, very interested in studying all docs produced by DDMI and all the consultants." [From audio recording, Jack, KIA]

"Yes, I would, I have always been interested in things like this, and the how, is if I have a youth with me. I would really want to just keep coming back with them, so they can get stronger and willing, and have fun, have the strong feet, to do it. And talk and talk and talk to them about it, until it sinks into their head, about our land, and also about them, then they can come to, after they learn and have all the experience, then they can carry it off to another youth that will be replacing them. [Myra: We should try to bring the same youth back?] The same youth back, maybe for 2, 3, 4, 5 years, then at that time, they will be an Elder and they can bring another youth. [Would it be good if we tried to find someone to work at the mine site? Or a different program?] No, a different program, just like monitoring the land, the water, things like that. There would be some who I know they don't want to work at the mine. They would rather be in the

land like this, and learn, at a camp like this, or like TG's. That's the way they will learn, and bring knowledge home and talk to their friends, or share with their friends what happened on the land. [Myra: How can we share it with their friends? Presentations, video? What's the best way?] I think the video is to share, just like all the maps you have, and the pictures. [From audio recording, Marie Adele, TG]

#### **Other Comments**

"Always keep look out for wildlife - no matter where / what you do; on map, see: caribou trail along shoreline. See lots of lichen, 'nde nokw'o'. 'Xozii ts'o gots'agoo' caribou food - growth - green.; We see moose in lower barrenland near the treeline now; they run away from forest fires.; cranberries still hard, red top with green under.; see lots of caribou lichen all around above the shoreline; black crow berries growth, cranberries; caribou and moose could mingle nearby without scaring each other." [Written observation, Peter / Lena, YKDFN]

"Dangerous to walk on barrenlands wearing red. Wear only green and black." [Written observation, Marie Adele, TG]

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## **Transcript, 6pm, August 7, 2021: Group discussion on TK Panel recommendations (evening)**

-Joanne: We'd like to discuss what you saw today and yesterday when we looked at vegetation, whether you had any comments, share any of your observation, if you saw anything that bothered you, if you have any recommendations from the TK Panel vegetation watching we have done so far.

-Nancy: I noticed the vegetation here since I started coming here. From all that heavy rain and wind, it cleans up all the surroundings, so I'm not seeing any difference.

-Peter: That lady that said she likes it when it rains off and on [Nancy], the rain washes-it helps the plants to grow, it washes the ground and it smells really nice. It's good this time of year when it rains quite a bit because it helps everything to grow, the berries, the lichen on the ground, all the little shrubs on the ground grow really green. It's good for the animals when they migrate because they have food to eat along the way. When I was in the plane looking down on the land, he thought we were just going to land on a nice sandy beach, no big rocks. But I got off the plane and started walking and there was rocks all over, I had to watch my step, really be careful. But we made it to the end so far and it has been good. ...the kind of beaches we see in the east arm, that kind of stuff.

-Lena: When we were talking about when it rains and it cleans the ground, the plants, back home when it rains, you see all the flat rocks and then after it rains, it smells so nice and the rocks are clean and shiny.

-Kathy: I have nothing to compare what I've seen because this is my first year here. I can't make any changes, judgment changes to the plants. But what I have seen and learned from Nancy, is-I learned about the lichen caribou eat, that they eat mushrooms and other plants, that there's not much of that lichen, not many mushrooms over there, so I don't think this is a good area for them to come through and think they've going to eat. However, I saw lots of berries, all healthy at the moment, all very small, moisture at this end. But where we were it was more dry, but there was still berries coming. But no food over there either I don't think for the caribou, not much. From what i understand it takes a long time for lichen to grow back. I think the program that Diavik has where they check for lichen growth every 5 years is good. But I also observed lichen that's dying out there. It could be from dust. They are affected greatly from dust. Perhaps they could just check to see if there is any death to lichen in those plots. Even if not writing it down, just to check and see if they are dying. ...they should make a note of it for sure. I know they are looking for growth but because of the dust we want to see if they are dying more than they are growing. ... I've seen them at Diavik camp, that was in the spring when we went there. There was lots of caribou, I took pictures... they were sitting all outside the dining room window. They seemed to be eating something and laying down and resting. They are getting something, there is probably something there they are eating, good be old berries, maybe Peter would know. ... [there

was about 40 caribou there, Joanne] ... yes, and then down on the ice. I told Myra already, it's my first time here so I can't really compare. But what they've been saying, I wanted to bring that up too. There is still caribou food that we see around, that first day we got in, I asked Myra to take me up on the hill as the helicopter was coming in. There was no blueberries but some were white and now after a few days they turn a bit blue... that's good. Cranberries greenish, light green, they will be ready by the end of the month. Other than that, it's my first time listening here and there and I know all these things are happening because of climate change. I wish I learned how to do the water thing, because I got on a different boat. There is always other times, they do fish camp every 2 or 3 years, wherever they go, I'll ask them to invite me because they do water testing... I'm just learning slowly and doing my best to find out more. I can't say, haven't seen last year or last three years or so. There are still blueberries and cranberries going so it's good, and there is still caribou food but I know it takes years to grow back. Our aunts and uncles were saying that, it takes a long time, it's good to see them still around. Other than that, Kathy and Nancy said what I wanted to say. "

*-Sarah: [Goes over summary of details so far that we have discussed, the specific recommendations documented thus far in notes – these are also in a separate document]*

-Joanne: We wanted to talk about some of the things that the TK Panel has discussed before: vegetation. One of things TK panel has discussed is Diavik re vegetating the plots (either planting or transplanting).

-Lena: It's okay to take from plants around here, because everything looks the same, if you take a big soil with lichen on it, then maybe that will grow.

-Kathy: I just wanted to add, correct me if I am wrong Joanne, one of the things Diavik-I remember going to one TK where Diavik said, in the very beginning they collected seeds from the area, we had a discussion about that, whether we wanted to plant or transplant - ...but we never really came to a decision, it's a subject that still has to be discussed.

-Nancy: For me, as soon as it's all settled down again, eventually it will all grow back to normal, so you don't have to vegetate. ... anything settles, in a couple of years or three years it will kind of come back, maybe not for that big pile, but-...

-Joanne: The concern has been that there's lots of abandoned mines where rock from underground has been brought to the surface. You have these pits and other, like Pine Point, where it has been 40 years, at least, and nothing is growing. It's because it's a different kind of rock. In some cases, in some parts of the mine site, we told them about what kind of material to put on the top, on the surface, to help regrowth. But that's little pieces here and there, it's not across the board.

-Kathy: When they drained all the water out of the pit to start their mine, they took all the silt from the bottom of that lake and put it aside. They took that soil, they have enough to

cover it, they'll take that and put it all over the north country rock pile, and that will help with regrowth.

-Joanne: Anything further on that issue, on the question of seeding or vegetation? [No, nobody from group raises anything else] To the question of Diavik dust collection sites, how long will they leave this up, how long do you think they should leave them up?

Peter: Leave it standing up. Even after the mine is closed, people are still going to be there, slowly closing up, and using machines, so just leave it there.

-Kathy: Until we see significant regrowth. There's going to be lots of dust still flying off that big hill. We are talking about monitoring a site many years after closure. That could be one of the ways they do it.

-Lena: There's also Misery across the way...

-Marie Adele: Just like Kathy. I'm a copycat. [It should be] long-four or five years. But I was going to say that before her ! As long as the dust is covered, maybe with grass, plants here and there, it should continue. As long as the mine is healed by itself, with all the waste on it. That's what I want.

-Joanne: What about water sampling? How long should that take place under Diavik?

-Peter: We have to continue collecting and testing the water, because of what we've seen with the fish. If we don't do anything about it, eventually all the fish will die. They have empty guts, don't have food to it. He's referring to that. There's lots of fish in this lake, maybe thousands and thousands, but they don't have food.

-Kathy: One of the concerns brought up in the past was after mine closure, was runoff on the far side of north country rock pile there is a natural creek there, not covered by the pile. It runs down there and into the far side of the lake. In pictures, they showed us, it's a different colour that comes out of that, probably the tannins. They wanted that monitored, keep that monitored, and figure out how to filter that. ...

-Gord: Those are being tested already, the lakes already covered by south country rock pile... the south one-this is an open pit, they are actively mining this... all the rock out of A21 [that's the south one that looks like a green lake... going into the south country rock pile].

Peter: Whenever they do blasting on the open pits, they put the waste rock over here, or over here, the dust, whatever day they do it on, when it is windy, it's always going to be dusty. And that little stream, creek where it flows out to, eventually it gets into the water and maybe it's killing off the fish food in some parts around the mine

-Joanne: One of the ideas we talked about out in the TK Panel was using moss to filter waste water.

-Peter: Some of those fish that are still alive in the next few years after the mine closes, maybe if the water doesn't clear up fast enough for food to grow back, maybe that fish will be deformed. That's all I'm saying for today.

-Kathy: [Re: shows pictures of A21 an south country rock pile on phone]

-Peter: He agrees with them [the TK Panel]. He said moss sounds like a good idea, if it was recommended by TK Elders. It's just like a sponge where it collects all the dirt, and water just flows through it. You know the same thing like a gas tank, you want to pour kicker tank, it has no screen on, dirt will go in. If you use a screen, it goes through, then it will be clear gas. Same thing as what we're talking about, moss. The ground moss, they use that just like a screen for the kicker tank, so only the good stuff goes out and the bad stuff stays in the moss. It's good.

-Joanne: We talked about, in previous TK Panel session, the idea of keeping that stream...

-Nancy: I mean the water, how long are we going to sample it? Right now seeing the fish are so hungry, I guess the water is already affected from no oxygen, because rock dust is so heavy, for so many years it has been running, every day I don't know how much dust goes under that lake. The longer the dust comes up and there's no oxygen in the water, that's why it makes all the things... I would really like to know why our fish are so hungry. There's no oxygen in the water from the dust. First time we came here it was clear, for 3 days we were here looking at that area over here and Ekati, that dust is constantly high. When it comes down onto the water, there is no more oxygen coming up from underneath. If there was a way to clean the bottom! It's really hard for fish to live in there. I would really like to know why the fish are hungry."

-Joanne: You want to look at what caused the changes that you've seen? Understand that?

-Nancy: Yes. It would be really good if we can see if there is anything in there stomach in a month or two. If you get fish nets or fishing with a rod, don't even have to put nets out, just try to catch a couple of fish and see.

-Peter: Yellowknife Bay, where Giant Mine and coal mine are, near Yellowknife on Great Slave Lake, the water is still good for fish but into Yellowknife Bay and Back Bay, that's where all the mining activities took place. We know the water is not good because you can see it. ...you can see the colour of the rocks. When you get to a shallow part ...you can look down in there and sometimes you don't see anything, just yellowish brownish because of water streaming down off rocks from Giant Mine. Some parts of Giant Mine ...just sandy area or the rock just goes straight down. That's where the overflow goes down the rocks into the water. ...so many years they worked on Giant Mine, 70 years, it has been a long time... since they closed it, we don't see any big difference in the fish yet in Yellowknife Bay because we don't fish there. We have to go 80 miles out ... **Boleo Bay**, around that areas, towards Łútsël K'é in that channel, if you set nets in that areas, you get really good fish, fat

fish, when you open up the guts, the stomach, you can see little fish, minnows, it means that they're really healthy. That's why we don't want any more mines in there.

-Nancy: If you look at the shore by the boats [right by the AEMP camp, near the dock] you can see that green slimy stuff, that's unhealthy [algae]. There should be lots of little fish swimming around there, but there's really nothing. It's all kind of ..under there. There is no oxygen in the water and you see all that green stuff.

-Joanne: We're also trying to get a sense of how long-we talked about some monitoring for AEMP, some for DDMI, we want a long term monitoring program so our own young people are doing both the science and the TK work. Rather than try and explain DDMI's current plan, could you talk about the time frame for particular kind of monitoring activity that is in your current plan, and we can go from there?

-Peter: I think every two years is good timing. That way you don't have too far in between just in case something happens. Every two years, good to gather people again.

-Myra: We have heard people want us to monitor for a long time. We will continue to monitor after we close. At this point, we are thinking 20 years, but it will depend on what we see.

Lena: What happens after 20 years? Government takes over like Giant Mine?

-Myra: We are trying to do reclamation right now already. Some of the things I've tried to put out, the rock pile is smooth, gradual, not a steep cliff like if you look at Ekati. Based on what we heard from the TK Panel and also from what we understand, we made a gradual slope, that's part of our progressive reclamation-that's for caribou. ... That's a part of what we want to understand. Is monitoring something that communities are going to take over?

-Joanne: Yes, and this question is not to get them off the hook. It's for planning.

-Nancy: For me, when they started and I was first thinking about it, from 100 years to 50 years now it goes to 20. I would like at least 50 years. Because this is a huge project. It's huge. It's not going to heal right away. Now it's dropped right now to 20 years. ...because when they open, they said we will clean it to how it will use to look. Now this rock pile is stuck there. We would like them to monitor at least 50 years, not just 20. Our land is important to us, especially our water. And our fish is hungry. I would like to keep it at least 50 years.

-Myra: Diavik monitoring? [Joanne: Or Diavik paying?]

-Nancy: Don't just take off after 20 years. Can you promise us for at least 50 years, not just 20? This is a whole big project they are doing. It hurts me if I say okay 20 years, that's nothing. We have so many people, we are sad for our land. We need to try and feel better. Especially if our fish are hungry.

-Myra: If things were really good tomorrow would you still want to do 50 years?

-Nancy: I would still, because it's already not good. Let's not say if, it has already been done.

-Peter: Write it down, 50 years.

-Nancy: There's no more if. [So even if good in 10 years, consensus is people still want 50 years of monitoring].

-Kathy: I think where Nancy is coming from, there was talk of them burying big machines in the underground and the possibility of many years later, those machines leaching. They blasted and they cemented cracks but there is still runoff coming from somewhere eventually the rust will seep into water, that was the concern for long term monitoring. So in 20 years, say you're out of there, and then 10 more years later you see stuff coming out, well you've already gone and walked away, what are you going to do now, who will fix up, and how? That's the concern.

-Gord: That is not happening, we are not doing that [burying machines].

-Kathy: At one point in TK they talked about putting it underground.

-Gord: We are not doing that. They might be burying them in rock pile above the lake. We have a landfill inside the north country rock pile for steel or plastics.

-Lena: We need an example.

-Nancy: First time I came and they say it's all clean, there is no nothing, then I start seeing a big pipe or something that's really rusted and I asked what it's doing in the middle of the pile, a big metal piece sticking out. They said they buried some metals there. That's very concerning.

-Myra: Machinery, heavy trucks or anything with hydrocarbons, fuel, will not be left underground. But there may be some things like ventilation things, things that don't leach. Metals, plastics. Those will stay in the underground.

-Gord: [See accompanying video and picture, diagram he drew] This is the stuff left above the ground.

-Peter: Over at Discovery Mine, they did something like that. They did a good job but we don't know.

-Kathy: We know that the core of that pit is frozen?

-Gord: Yes. Water percolates, rain falls down through, into the permafrost layer. ...it will be covered with more rock.

-Marie Adele: Sometimes when it rains, the water will still drain through and then go out somewhere.

-Myra: All of this stuff is acid generating rock. So we took stuff out of the ground, we stored it, now we are covering this, it's about 1.5 m of till. And then top of that, there's another 3 m of other rock, so there's 4.5 m of good stuff. In the middle, it will all be frozen. Like putting a blanket on top, will stay frozen. Stuff on top is not bad stuff.

-Joanne: Kept frozen naturally, or mechanically? [Myra: Naturally.]

Gord: Lena mentioned climate change...

-Lena: It's a possibility, so 50 years, maybe 100 years.

-Myra: The modelling we've done, we can predict what will be done. So that we can plan what we should do, we based it on 200 years. We can't know until we get there but that's what we based on the plan on. That's based on what we know now, as it's accelerating.

-Lena: Between now and closure, can't you haul stuff back out?

-Myra: I know it's been talked about at other TK Panel sessions. Where would it go?

-Marie Adele: Wherever you got it from. [Gord: One thing we are doing this summer is to inventory all the things, to see what we can sell and ship off.]

-Kathy: Things like whiteboards, what you going to do with that whiteboard, pens, chairs, parts from graters, loaders... what are going to do with that pool table?

-Marie Adele: Sometimes when you have companies-they sell it to different companies instead of giving it to the people, like Wekweètì. But they are supposed to bring to Wekweètì, it was sold somewhere else, a tractor for the road, all that. ...other companies are buying it off them.

-Myra: Right now we are doing an inventory and then we can share with communities, to see what they are interested in. There may be mining equipment that communities can't use. ... We will be prioritizing communities. But I'll also say, we are also concerned-we have an example of a mine in Australia that closed last year, and we had these buildings, tents, that communities said they were interested in. We shipped them to a community but then they just sat there and became garbage. But we want to be sure we are not shipping garbage to your communities. So that's why we have the inventory. So it won't end up going to your landfill.

-Peter: There are some families that would take or be given things, they would be grateful to be given things they could use in their homes, outside their homes, a big family, lots of kids. Those people would probably appreciate it. As their kids are growing older, they could be made use of. When I first came here, we got on the plane, settled down a bit. Across on the water I saw a coming with the cover on it. When I took a good look down by the shore, I'm going to keep on bugging the company until they give me it. He still thinks about it, you could go to Łútsèl K'é with that boat, no problem. When the many says okay you could have it...

-Kathy: Just going back to what you said Myra, perhaps they didn't know or have the manpower or machinery to set them up. If that's the case with Diavik, as part of their community shut down. It's part of their responsibility to set up tents and provide direction, so they don't go to a community and becomes garbage, for example, if there is a furnace that goes with it, teach them how to operate it. The maintenance.

-Marie Adele: If TG comes back in two or three years, are we going to get this? If it's closed, they won't give it to you to commute on, next 20, 50 years. [Myra – they rent the tents every year, Discovery mining owns the tents].

-Nancy: I was thinking for our community, what I'd like to see of our community, I would love a huge homeless shelter. We have a lot of people who are homeless and overcrowded housing. It would be nice to have a homeless shelter for people.

-Myra: That's another engagement we'd like to think about, back in your communities, what will impacts be to the members of your communities when we close, what can we do about that. That is one thing we'd like to hear from you.

-Joanne: There is some interest in the windmills to help reduce the power cost to everybody in the community. That's something that DDMI has been asked to explore, see what would be involved in moving them. Plus long-term maintenance.

-Lena: And education for that?

-Joanne: That's something Diavik has to look into. How serious is the community in wanting it, will they support people to gain skills and train them?

-Peter: Go to school ahead of time.

-Myra: Draft recommendation there?

-Joanne: We're going to take what people have said about ideas moving forward, into recommendation form, send them out ahead of time for you to look at, so you are ready when we have that meeting in the fall time, for you to consider them and whether you support that idea or not, or want to alter it. We'll be doing the draft that we normally do during a TK panel session, it's impossible to do it in this setting. We do wordsmithing on the spot, we can't do that, don't have a PPT.

-Lena: When I get home, I am going to tell some of my members to go there and sit in and listen. I am making a little mini-report but it's not as detailed as yours. That's what I was told to do. How many other community members attend?

-Myra: Just the same people.

-Myra: That session will be verifying the recommendations for the final report before that you will have draft report and after that you will have a final report. Final report on this session...

-Lena: I will share with community.

-Myra: Good, that's what we want.

-Lena: Some people go to meetings in south and don't bring things back.

-Myra: That's something we often here, that we don't share information. It's on the internet. We really rely on those that are coming to share with members.

-Joanne: Some do, really well, others don't. We don't pick who comes, it's your community that does that. Anything else that anybody wants to say?

-Peter: [Re: Giant Mine] ...there 237 000 tonnes of arsenic under Giant Mine. It has been quite a few years since the mine closed down and they are starting to work on it but everything takes so long and is so slow. But the YKDFN band is always aware of what is happening around there and the whole city and Dettah for 25 – 30 miles radius. That Giant Mine, 237 000 tonnes of arsenic buried under, and he said I am on the Giant Mine committee, we have been talking about it for years and years. Just like now, we are laying on the ground on top of arsenic, it's like that for us. That's why we try to inform newcomers to the town, some of them don't listen. We are always aware of that's happening and that arsenic will be underground forever, it is not going to go away. He is always referring to his mine. Whatever damage is there now, whatever is being worked on or cleaned up, it's not going to go away. It takes a long time for the land to heal ...about the Giant Mine area, the Baker Creek that flows through the property, there is lots of soil in there along under the creek where it goes, Baker Creek they call it. In our language, we have our own langue for it. they are going to do a water treatment building, they are going to ... drain it or something, they'll take the and out of the water, and then maybe they will put the sand back in the water with the arsenic. They will take the water and flow it through the water treatment plant and then drain it out to Great Slave Lake and into the bay... I don't know how they are going to do that, but nobody is in agreement. They are still talking about it, how many years went by? And then with Covid everything just stalled. There is work starting on it, but we don't see it. We don't see anything happening so we don't know if they are actually doing it or not. Our band members, every day we drive by and we call each other, if we see something like a fox or a bear, or anything unusual, we call each other right away. We keep each other informed.

-Myra: We are not going to walk away. ...

-Lena: He's using Giant as an example, because they just left. Even changed her name.

### **Discussion notes, closing comments**

-Group: We are concerned that water is contaminated for wildlife, that's why we always have to try to ask questions

-Peter: All jokes and things after we leave, all the jokes will still be in your head – remember!

-Gord: I learned a lot, and I also care for the land. You can tell people, they can talk to me about things [people at Diavik too...]

-Joanne: “What we saw this time is quite different from what we saw last time... it’s going to take a commitment from everybody to find out why we’re seeing what we’re seeing in the fish and water... that’s our goal. If we can bring healthy fish back to the water, then that means the land is healed. That would make me happy.”

### **Sunday, August 8, 2021 – DAY 3**

#### **Transcript of Discussion on Finalizing Recommendations – 9:00am, Sunday, August 8, 2021**

Joanne: “...I summarized past TK panel sessions whenever our vegetation was brought up. I found all of these sessions and pulled it all together. So you have that background available to you. ... [and do a summary of what we have found so far]...”

Sarah: We've been looking at two sites, one just there, and one there. Finding cloud berries, cranberries, blueberries, lichens, caribou trails, old caribou trails. And some people are noticing that some of the plants are dry. And they'd like to see how this vegetation looks compared to other places farther away, where the wind is blowing more often. And wind and rain will greatly affect how much dust affects the plants. So we can do this sheet by sheet, I guess, and see if there's any specific recommendations to Diavik that we'd like to make about this topic. And I can write it up here. ... And people talked about caribou eating foods, depending on whether or not it's wet. So they'll eat willows and grasses if they're wet, but their main food would be lichen.

*Recommendations discussed.*

Sarah: [We heard] Filtering with moss, great. And the last one, maybe for today, monitoring for 50 years with elders and youth is something that we heard yesterday, very loud and clear. So I'll add that to this.

Nancy: Hopefully all the people who are doing the science work are also trained Aboriginal youth. That would be really nice. ... I'm thankful for all the workers here and I'm thankful for Diavik who's listening. I can see the slope is getting really nice on that side. I was really happy. I was like, "Oh, how nice." I'm so happy for all that we're doing is for us, because we can't do it alone. Thank you, so much.

Kathy: I just wanted to reiterate what Nancy was saying and thank you guys for your insight in helping us extend our thoughts and pushing us to think farther and beyond, so that we can have good results, working with Diavik on this closure. So I know you guys all worked very hard to do your jobs. ...

Jack: I have the same sentiment towards TK Panel working so hard and agreeing and working together. And if you were not aware, this is the first mine that has this type of stuff. TK, I think [inaudible 01:41:48] environmental board on this TK Panel. So I believe they're the first mine doing it, either worldwide or maybe just in Canada, I don't know. I believe it's the first one. So, the world will be watching to see what happens here. ...

Kelsey: I had fun, it was a pleasure. I learned a lot ... with all of you guys. Hopefully I come back next time.

Vikki: I'm super thankful and grateful that I got this opportunity to come here, hear the stories of the Elders and their knowledge.

Peter: I would just like to say thank you to everyone who was here working alongside ... It seems like it's a very big thing that we did while we were here. We also took water [inaudible 01:47:32] samples of the water. We see the fish with our own eyes, how it really looks, inside the guts and everything. The land you see all around here is like the mine ... everything that grows on the land is food for the wildlife that roam on this land. We do not want food to be destroyed or contaminated for the wildlife ... we always have to raise questions, we always have to try to find answers. I'm thankful that I'm here with you to be part of this. Thank you very much.

Lena: I'm thankful that I came along with my Elder, and the youth, which I didn't really know, because we hardly see each other and we live in different communities. But I know his dad, I know his mom, I'm thankful that he came along with us. And this is my first time at this camp here, but I've been to other areas, other camps, so I kind of knew what it would look like. But my experience of being here is worthwhile for me, because I learned a lot of new words that I didn't know ... I didn't know that the shrubs outside were actually birch trees. I didn't know that. So, I'm thankful that I learned some new words to add onto my list at home. Thank you so much. ...

Peter: Even after we leave here all the jokes that were told, and how we said certain things will be kept in our memories. ...

Gord: It makes me very happy to see people who care so much, and want to get involved, because I know it's not always easy to find people who are able to come to these camps. So, I just wanted to thank everyone, young and old, for coming and providing their perspective and teaching me a lot as well. And I just wanted to say that there's a lot of people at Diavik who care very much about the land as well. We all have relatives who work at Diavik, and people from the north and from all over the world who work at Diavik, who all care very much about the land. So, if you ever hear stories from people you know at Diavik, you can always tell them to go talk to Gord and he can follow-up on them, because I want to make sure we do good by the land and by everyone. So yeah, thank you very much. We couldn't do this without you all, I really appreciate it. ...

Myra: ... Thank you for being open with us, and thank you to the youth for ... Not only am I learning from the elders, but I'm really, I'm so moved by the respect that I see from the youth for the elders. And I'm very grateful, especially to those of you who come back year after year, because it's that commitment that will allow us to make better plans for when we close. And this was a very long session, and everybody's very tired, so I'm so grateful. So grateful that we were able to complete this process with the recommendations. Those are what will go into our planning moving forward.

Sarah: I want to say thank you so much to everybody. I learned so much from everybody, and I laughed so hard that I cried many days. Before the trip I was scared, I thought it's really hard to see people so sad about the land. It's hard to know that Diavik is trying to do the right thing, but still there is conflict sometimes. It's just very difficult. But to see that everybody cares so much, and that they can still be respectful to each other makes me not afraid anymore. And I feel a lot stronger seeing everybody's strength here. So, thank you so much. And I would like to say thank you to Joanne and Natasha, they worked really hard with people who have been coming back, and care so much about this program, so that seemed very special, as is everybody else. But it's so nice to work with you.

Joanne: This camp was a real challenge right from the beginning. To plan it, and to try and live within the COVID rules was tough, made a little easier by some flexibility by Diavik. What we saw this time was quite different than what we've seen before, especially with the fish. And it's going to take a commitment from everyone to help understand what's going on with the fish, why we're seeing what we're seeing, and then to try and find ways to bring the fish back, strength, strong fish, the health fish back. And so, that's got to be our goal. And if we can bring the health back to the fish, it means we brought the health back to the water as well. And so, that would make me very happy. ... I'd really like to acknowledge both Gord and Myra, this is their first camp. And they took on the workload of many, many more people, and have done really well. And I know their heart is in the right place, their commitment is there. And that I really do appreciate that combined with the strength of the recommendations that we have going forward. I'm hoping that that will allow you to take a leadership role in implementing those changes, and the ideas. ... Nancy, I just have to say that your commitment is the best, it really is. And you just keep coming back, you just keep working away at it, never, ever giving up. And I just love that about you. And I love how much you're willing to share, and never get tired of that. ... Kathy, I've known her forever, almost, since we were teenagers. Yeah, and we worked together in different ways throughout all those years, and I see your growth, I see you becoming an elder. You're still young and beautiful. You're developing your wisdom really powerfully, and I really enjoy watching that.

**[End of TK Panel #13 2021 Daily Notes]**

**Appendix D – Workshop Evaluation Summary**

## Diavik 2021 AEMP and TK Panel #13 Evaluation

	Very Good	Good	Neither Good nor Poor	Poor	Very Poor	Total Responses	Comments
How would you rate the camp for working together?	5	6	1	0	0	12	"Not enough time during day to discuss where improvements could be made"
How would you rate the camp for Elder-youth teaching opportunities?	5	4	1	1	0	11	[1 response: both good and neither good nor poor checked - entered here as neither good nor poor']; [1 response missing] > "I don't know what to say about this part because we didn't have a youth with us. But the person who came with us knows what to do."
How would you rate the respect among participants?	5	7	0	0	0	12	
How would you rate Elder care and attention?	8	4	0	0	0	12	
How would you rate the documentation of TK?	2	8	1	0	0	11	"Received no copies of "Recommendations" re: TK made at this camp"; [1 response missing]
How would you rate the venue and food for the camp?	7	3	2	0	0	12	[1 response: both good and neither good nor poor checked - entered here as neither good nor poor'] > "Location is poor, especially for Elders. Food was very good, thanks to the Cook."
How would you rate the logistics for the camp? (e.g. hotel, travel, honoraria?)	3	4	1	2	1	11	[1 response: both good and poor checked, entered here as 'neither good nor poor'] > "raise honoraria"; "*Honoraria should be upped to \$400 or \$500 per participant."; [1 response missing]; "Lack of clarity re: honoraria, expenses"

How would you rate the camp for safety?	5	7	0	0	0	12	
Overall, how would you rate the camp?	5	4	2	0	0	11	[1 response missing]; "Too much rocks for elders"; "Spots, too much rocks, elders";
	Too much time / Too many opportunities	Enough time / Enough opportunities	Too little time / Too few opportunities	Total Responses	Comments		
How would you rate the opportunities for you to communicate among participants?	0	9	2	11	Participants should get together to discuss TK by themselves and relate to facilitators later; [1 response missing]> "More things are coming out of TK what we see from past years."		
How would you rate the filming process?	2	8	2	12			

**12. What were the strengths of the camp? What did you enjoy about the camp?**

"1) Eat, sleep and being taken care of (elders) 2) Friendly towards each other"

"I really enjoy the open space and see as far as I can, and fishing, hiking. I learn about testing fish to see if it's sick or has enough food in the stomach."

"\*Loved the scenery! Loved the "smell" of the land! \*Everyone looked out for each other. \*Telling jokes, laughing and keeping each [other] positive, even when weather was lousy. \*One camp-worker very helpful with needs of participants at their cabin."

"Camping and visiting members from other communities"

"Meeting new people and seeing old friends, since Covid started miss see[ing] people!"

"Elders knowledge about the land and animals. Changes to caribou and fish."

"I am not worried about camp. I am worried about what has to be done. I enjoyed being out on the land."

"Strengths of the camp were having Elders who were so eager to teach about the water, fish and land and hearing the stories. I am so amazing of how much knowledge each Elder told stories [of]. And their passion and love for the land."

"Each EA participant is at site and participating, it's on land that do not have development impacts like roads, vehicles and so on."

"Joking, singing, boat trips"

### 13. How could the camp be improved?

"Move campsite to a better level ground for elders to get around. Improve shower areas and provide sinks/mirrors to brush teeth etc. Give us pictures to look at from past camps."

"Make a good path for elders to walk, try to remove rocks. Always remember to pray for our land, water and our family that are home to be safe until we go home to see them again (morning or after supper)."

"\*Better location. \*More time for participants to hold group discussions, without the facilitators. Will have more open discussions re: TK in our own regions and to see how we can make recommendations upon agreement with each other. \*Have basins; water; toilet stuff in cabins. \*Have photos of past camp participants and their recommendations handy."

"More thought through - meeting area vs. kitchen area. Warmth for our elders. Have [water?] participant[s]."

"Very good"

"Building for meeting! Or two tent frame, enough to hold 30 people."

"When sampling taste testing water, I recommend to finish the day they pick up water instead of waiting for the next day."

"This is my first camp, and I've learned so much and it makes me proud to be an aboriginal person. Overall I thought this camp was amazing. We can't really do anything about mother nature. I want to thank KIA, TK Panel, Diavik, the facilitators, Elders, for such an amazing opportunity. If I had a choice, I would certainly participate again!"

"1) Need meeting place, eating place. 2) Cook's helper! 3) Interpreter work place, i.e. box or other to keep interpreter vocal[s] interfering with others talking."

"Better paths"

**Appendix E – 2021 DDMI Vegetation Survey**

Lichen/Veg Traditional Knowledge Questionnaire			
<b>Effective Date:</b>	29-July-2021	<b>No:</b>	ENVI-1229-0721
<b>Task:</b>	Vegetation Field Sheet	<b>Revision:</b>	0
		<b>By:</b>	Gordon Cumming

DATE (yyyy-mmm-dd): \_\_\_\_\_ Time: \_\_\_\_\_ Vegetation/Lichen Plot: \_\_\_\_\_

TK Survey Questions                      Participant Name \_\_\_\_\_ Participant Community \_\_\_\_\_

Is the vegetation in this area healthy? How can you tell?

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Would caribou like the vegetation here? What plants or lichens would caribou be attracted to?

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How does the dust affect these plants?

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How much food is there in this area for caribou? Is this food good quality or poor?

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<b>Lichen/Veg Traditional Knowledge Questionnaire</b>			
<b>Effective Date:</b>	29-July-2021	<b>No:</b>	ENVI-1229-0721
<b>Task:</b>	Vegetation Field Sheet	<b>Revision:</b>	0
		<b>By:</b>	Gordon Cumming

Are you seeing similar changes here as you are in other parts of the tundra?

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How would you recommend Diavik monitor vegetation and lichen going forward?

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Are you interested in participating in future monitoring? If so, how?

I give my consent for the above information to be utilized in reports:

Name: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

<b>Revision History</b>			
<b>Revision</b>	<b>Revision Description</b>	<b>Date of Revision</b>	<b>Author</b>
0	Initial Release	29-Jul-2021	G. Cumming

# Appendix F - Previous TK Panel Recommendations

Summary of Previous TK Panel Sessions with Reference to Vegetation	
<b>TK Panel Session #7: Re-vegetation (2014)</b>	<p>Study vegetation east and north of the Island to understand good caribou habitat.</p>
	<p>Participants felt that tundra vegetation is very powerful; like there is something underneath that is helping it. They noted the importance of moisture for growth. Many participants felt that the environment is powerful, that nature will heal itself and that vegetation at the mine site will grow again on its own. Others felt that what has happened on East Island is not natural, so it cannot be left to Nature alone to heal; Nature needs help in this case. Still others noted that climate change will result in differences; e.g. willows are taller now at places where Panel members used to camp and different species are coming to the north (which Elders predicted in the past). Some participants thought that vegetation on the East Island is different from the mainland (and that this could be from human activity, introduced species or climate change).</p>
	<p>Some revegetation should be planned for the rock pile. Consider use of good, black soil from the tundra or other eskers in the area. Plant native shrubs such as dwarf birch and willow in the soil near the bottom and allow the remainder to revegetate naturally.</p>
	<p>Respect for the land includes respecting natural systems - there is a reason for each plant being there. Introduced species can be harmful and quickly take over; preference is to use naturally occurring plants. Using soil from elsewhere may be acceptable because the Diavik island is a traditional place for caribou to roam and is a good feeding/resting area; another option is to use till from A21. Revegetation will take time but it is the right thing to do. Consider visiting old archaeological sites or other esker sites to view re/growth; exposure will dictate what grows where (shade, leeward, side, top).</p>
	<p>Many Panel members believe that nature needs a helping hand; it will heal itself, but conditions to allow re-growth need to be created. Everyone recognizes that things grow slowly in the north, but that over time the area should heal. Panel members desire to see the land as close as possible to how it looked before is the main factor in guiding recommendations. While it is acknowledged that the area will never be the same again, efforts to reclaim areas in a way that resemble natural features is preferred.</p>
	<p>Relating to re-vegetation, the North Inlet requires further discussion in terms of it being a no go zone, replanting zone or encouraging zone for wildlife.</p>
<b>TK Panel Session #8: Fish Habitat Design &amp; Water Quality (2015)</b>	<p>Re-seed land and use dirt and safe sewage to facilitate re-growth.</p>

<p><b>TK Panel Session #9: Post-closure Wildlife Monitoring (2016)</b></p>	<p>While some members of the TK Panel initially hoped that the NCRP would be re-vegetated, others preferred to let nature take its course and heal itself over time. After much discussion, Panel members concluded that it would be beneficial to focus re-vegetation efforts to the areas where ponds are located at the base of the NCRP. This would help to both naturally filter water coming in to or flowing out of the ponds, as well as to possibly help the pile re-vegetate naturally over time.</p>
<p><b>TK Panel Session #10: South Country Rock Pile &amp; TK Monitoring Plan (2017)</b></p>	<p>Cover PKC area with a combination of natural sand and soil to ensure that the PKC is not over-heating the area (and melting permafrost) and to support natural re-vegetation.</p> <p>Create wildlife habitat and stabilize ground with transplanted willow.</p> <p>Create marshy areas with moss, lichen and berries; This type of vegetation would provide a food source and safe travelways for animals. It would also resemble what the area looked like before the mine was built.</p> <p>Some start-up watching projects might look at:</p> <ul style="list-style-type: none"> <li>- what plants are growing on disturbed ground and why/why not;</li> <li>- presence of ground squirrels on the East Island;</li> <li>- health of the shorebirds on the water (as an indicators for health of water);</li> <li>- snow accumulation and natural revegetation around boulders atop the test pile;</li> <li>- watch and monitor dust impacts on water and plants as an important part of the food chain;</li> <li>- animal scat, this should be part of a TK Watching program;</li> <li>- look at possible impacts on plants, with special consideration for those used for medicine</li> </ul> <p>Re-vegetate the lake with water plants of this area; Such plants contribute to biodiversity as they are a food source for other fish and animals. Plants feed fish but may also clean the water that wildlife may to drink and birds are likely to land on.</p>
<p><b>TK Panel Session #11: Options for Processed Kimberlite (A418) (2018)</b></p>	<p>The TK Panel would like to see the PK vegetation plots again</p>

DDMI TK Panel Recommendations and Response Tracking - Wildlife Monitoring & Management						
NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
<i>Assigned by DDMI unless otherwise indicated in report</i>	<i>Be as specific as you think is appropriate; for example a section or page of the document, a recommendation #, general comment, etc.</i>	<i>Recommendations should be as specific as possible and explain an action that you believe is necessary; supporting information or rationale should be explained in the "context" column.</i>	<i>Context should contain all the information needed to understand the rationale for the accompanying recommendation.</i>	<i>Distinct values/concepts that are contained in Traditional Knowledge and can help to guide decision process</i>	<i>Responses should be as specific as possible, relating the issues raised in the "recommendation".</i>	<i>Actions should be as specific as possible, relating the issues raised in the "recommendation"; where possible, a timeframe may be included.</i>
1.1	A Way of Life, 25 Oct 2012, pg. 19	During July/August, a regular training session should be planned for Diavik staff in ways of properly respecting caribou and other animals	Cross-cultural learning is important when there are two ways of knowing wildlife. Scientists and Environment staff have a different way of doing work and understanding wildlife compared to that of TK holders. Respect for wildlife by TK holders means following the traditional laws that govern the relationship between humans and individual species. A successful monitoring program requires good communication and this can be challenging in a cross-cultural setting. Strong relationships and a special effort to understand the differences are key to success.	Respect Reciprocity Traditional Laws	Diavik staff and community assistants participating in the monitoring program undergo onsite and field training prior to initiation of the program. In addition standard operating procedures are revisited in the field throughout the process. In 2012 and 2013, Diavik invited community Elders and youth to participate in the monitoring program to observe staff performance and evaluate procedures. Minor changes were suggested and are currently being reviewed.	Involve community members in caribou monitoring and share knowledge of different practices relating to wildlife.
1.2	A Way of Life, 25 Oct 2012, pg. 19, 25	When elders are brought to site for staff training exercises, youth delegates should also be involved	The youth are living in a changing and complex world now. They have skills that the Elders don't, and they can help in the future. Everywhere that the Elders are called upon to share knowledge or observe changes, the youth should be with them to both learn and share. Teaching stewardship is the responsibility of each generation of elders.	Stewardship Intergenerational Social	Due to the nature of remote field work, seating capacity may be limited. Adding a youth component to this program limits Elder participation but has generally been supported by the communities.	When possible, invite Elders and Youth to participate in Diavik activities.
1.3	A Way of Life, 25 Oct 2012, pg. 19	The TK-Science camp at the mine site is an important place for developing skills and capacity in cross-cultural caribou monitoring	Elders feel that they can be creative in collaborating with Diavik in a cross-cultural setting that includes observations and knowledge exchanges at the TK/IQ Camp.	Reciprocity	Recommendation is outside the scope of the Caribou Behavioural Monitoring SoP. Such opportunities may be considered for future camps, depending upon the focus of the camp.	N/A
1.4	A Way of Life, 25 Oct 2012, pg. 19	The TK-Science camp (known as the CBM Camp) should be moved to a location north of Diavik on Lac du Sauvage. The setup must be in the Aboriginal way, not in a square, so that it's not threatening to the caribou.	In keeping with traditional laws governing relationship with caribou, the camp should be closer to the caribou migration route in order to develop skills and capacity in cross-cultural caribou monitoring. Aboriginal camps on the land have a specific way of being set up, and this should be respected for the set-up of the TK/IQ camp.	Traditional laws	The camp site has been established in consultation with community members under a land use permit with the WLWB and will not be relocated. The footprint of buildings and other infrastructure will not be changed significantly, in order to reduce further impacts on the environment.	N/A
1.5	A Way of Life, 25 Oct 2012, pg. 19	Monitoring results should be reported back to the communities on a consistent basis.	Participants expressed frustration at the lack of communication (and involvement) with community members relating to caribou monitoring at the mine site to date.	Reciprocity	Diavik prepares annual wildlife monitoring reports and an Environmental Agreement (EA) summary report. Additionally, EMAB produces an annual report that summarizes findings and recommendations. Wildlife monitoring updates are also included in annual presentations to communities. Diavik welcomes any further recommendations on how best to ensure that this information reaches individual community members.	Continue to distribute annual reports (which include executive summaries) to community organizations and visit communities as available. Investigate and request feedback on more appropriate methods for communication of monitoring programs & results.
1.6	A Way of Life, 25 Oct 2012, pg. 19	It will be valuable to "check nets" and synthesize what's already been done by Diavik to incorporate TK/IQ into its processes, and document/share lessons learned from these experiences in order to avoid repeating work already done.	Participants felt that they are often repeating themselves (to same and different companies) about many of these topics/concerns. A sign of being respected is 'being heard'; so to have to continually repeat themselves, TK holders feel disrespected. There is value in reviewing what Diavik has done to incorporate TK/IQ into their work.	Respect	Unclear if recommendation is addressed to the TK/IQ Panel or Diavik. Diavik is open to sharing information about current and upcoming TK/IQ plans and programs with the Panel for their review. Literature reviews have also been done to determine TK/IQ use for closure planning and vegetation.	Confirm if the recommendation is to Diavik or to TK Panel members/facilitators.
1.7	A Way of Life, 25 Oct 2012, pg. 20	Use pictures and/or other visual tools as part of the form for caribou behavioral scans.	Visual representation of the different behaviours of caribou is likely more accurate and would be helpful for people conducting the scans, especially new hires. People see things through a cultural lens and may interpret what is seen differently.	Reciprocity	An effort to take photos displaying various caribou behaviours was undertaken during the 2012 and 2013 monitoring seasons.	DDMI staff are evaluating opportunities to incorporate visual tools into the SoP.

DDMI TK Panel Recommendations and Response Tracking - Wildlife Monitoring & Management						
NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
1.8	A Way of Life, 25 Oct 2012, pg. 20	TK holders should be hired on a seasonal basis (i.e. spring through summer) to work with Diavik staff in caribou monitoring.	A TK holder on staff would be helpful in conducting cross-cultural training and monitoring considerations. Tradition requires TK holders to report their observations to each other and to discuss interpretation of those observations.	Reciprocity	Most caribou monitoring is completed from August - October. DDMI brings Elders to site to participate in these monitoring programs each year.	Investigate options for transitioning caribou behaviour monitoring to communities, while continuing to include Elders in current monitoring programs.
1.9	A Way of Life, 25 Oct 2012, pg. 20	Community meetings are a good way to gather more information on how caribou are doing	This can be a means of extending traditional monitoring practices to include scientists. Both parties are able to share their observations on caribou in a face-to-face meeting. Such an approach provides a good opportunity for community members to learn about what is happening at the mine in relation to caribou. And mine employees have a chance to learn what the communities are seeing in their areas.	Reciprocity	Recommendation is outside the scope of the Caribou Behavioural Monitoring SoP. Diavik hosts annual community meetings that include discussions on caribou and other wildlife. Diavik has also coordinated and participated in many wildlife forums to discuss caribou health and management with numerous stakeholders.	N/A
1.10	A Way of Life, 25 Oct 2012, pg. 20	Caribou observation logs can also be used by community members when they are on the land	TK holders adapt and are willing to use new tools to carry out their stewardship responsibilities. Harvesters in the community may find the Diavik forms useful, and it may be helpful information for ENR.	Social	Recommendation is outside the scope of the Caribou Behavioural Monitoring SoP. Diavik can supply the field sheets to communities, if requested.	N/A
1.11	A Way of Life, 25 Oct 2012, pg. 20	Include more behaviors in the list for observation	Participants felt that there were other common behaviours not captured in the list. Community members are more familiar with different caribou behaviours and could help to expand the list and capture more detailed information. The intricate TK about caribou and caribou behaviour is required to inform good decisions. For example, caribou that are scared will often put their nose in the air, sometimes jump and then gallop fast; they are threatened because they do not know what is going on.	Reciprocity	Elders from the YKDFN, NSMA and Tlicho participated in caribou behavior surveys in the fall of 2012 and 2013. One additional behavior has been recommended so far: curious (approached).	Consider changes to SoP based on feedback from community members.
1.12	A Way of Life, 25 Oct 2012, pg. 20; Closure Reclamation & Landscape History Interim Report, 19-22 February 2013, pg.6	Include more categories for herd composition and behaviour; involve two individuals nominated by the TK Panel to assist with updating the SOP.	Community members see caribou herds differently than scientists. For example, there are leaders and followers within a herd. Participants felt this would be helpful information to record because the relationship between herd members is important to understand in making decisions to reduce impacts on caribou.	Reciprocity	Elders from the YKDFN, NSMA and Tlicho participated in caribou behavior surveys in the fall of 2012 and 2013. No additional categories have been recommended to date.	Plans to review suggestions and improve the information in these categories is being considered by Diavik.
1.13	A Way of Life, 25 Oct 2012, pg. 20	Utilize Aboriginal terms/concepts as identifiers	Participants expressed that there are Aboriginal terms that capture caribou activity or behaviour, perhaps more accurately than English terminology for them. Specific terms and concepts contain unique understandings important in governing the way we treat or 'manage' caribou. Specific terms and concepts contain unique understandings important in governing the way we treat or 'manage' caribou. Addition of such terms to the data form may be helpful for community members participating in surveys.	Symbolism	This may be beneficial in the future, if caribou behavioural monitoring were to transition to communities.	N/A
1.14	A Way of Life, 25 Oct 2012, pg. 20	Injured animals should be sent to ENR for assessment	It would be helpful to have as much information as possible about injured or dead caribou, so that community members are made aware of the cause. TK holders may have other ideas about how to safeguard caribou in the future.	Stewardship Capturing knowledge	Recommendation is outside the scope of the Caribou Behavioural Monitoring SoP. Diavik has a specific policy and procedures in place for reporting and handling of injured or deceased wildlife, and this involves ENR.	N/A

DDMI TK Panel Recommendations and Response Tracking - Wildlife Monitoring & Management						
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1.15	A Way of Life, 25 Oct 2012, pg. 20	Scientists and TK holders analyze dead caribou together	It would be helpful to have as much information as possible about injured or dead caribou, so that community members are made aware of the cause, can share information and learn the way that government analyzes caribou carcasses. TK holders and scientists can exchange ideas on causes and ways to prevent future deaths.	Stewardship Recording knowledge Reciprocity	Recommendation is outside the scope of the Caribou Behavioural Monitoring SoP. Diavik has a specific policy and procedures in place for reporting and handling of injured or deceased wildlife. Diavik staff do not analyze dead caribou themselves; it is done by ENR.	N/A
1.16	A Way of Life, 25 Oct 2012, pg. 20-23	Four key areas for monitoring: 1. Behaviours 2. Herd composition 3. Caribou health 4. Environmental conditions	These were identified as the key concerns of community members that are all factors considered in the traditional monitoring system; they should be monitored by Diavik. Indicators or signs of herd condition were identified within each of these areas.	Stewardship	Many of the indicators recommended that relate to herd composition, health and environment are more appropriate to be studied by government at a regional level. Behaviours and local conditions are included in the current SoP.	N/A
4.1.1	Checking Nets, 23-25 Oct 2012, pg.8; Closure/Reclamation and Landscape History Interim Report, 23-25 October 2012, pg.8	The TK/IQ Panel should develop a report that more fully represents our knowledge and practice for maintaining the well-being of the caribou. TK assumes that all who live on the land of the caribou have stewardship responsibilities and must take these responsibilities seriously.	Many planning and monitoring gaps exist in relation to caribou and Diavik that have yet to be addressed, such as: Aboriginal monitoring approach (harvest camp), stewardship (traditional caribou laws), movement & cumulative impacts (monitor migration with youth), behaviour and herd composition (response to environmental influences, not just to mining). Preference is to monitor the herds when they are moving, north of Diavik.	Stewardship	Recommendation is to the TK/IQ Panel, however Diavik does not view this as within the mandate of the Panel. The Panel could recommend considerations for planning and observing caribou well-being in relation to the development of closure plans & post-closure monitoring programs.	A future Panel session to discuss closure monitoring is expected and caribou will be a part of that discussion.  COMPLETE
7.3	Re-vegetation Report, TK Panel Session #7, 14-18 August 2014	Use traditional techniques (e.g. flags, trees) to keep caribou away from areas that are unsafe (both near and far from site).	Caribou will find their old migration routes, but they also make their own trails that change over time. Some participants recognized that it is important to try to encourage caribou away from harmful areas far before they reach the mine site/East Island. Others felt that it would be impossible to prevent animals from coming to the mine site area. Consideration for guiding caribou on the mainland or around the island is a possible topic for future discussions.	Stewardship	DDMI proposes to hold a TK Panel session in the spring 2016 to discuss wildlife monitoring and management at closure. Further discussions to advance this concept would be well suited to this meeting.	Confirm TK Panel support for a 2016 spring session on wildlife monitoring and management at closure. If supported, DDMI to plan session for April/May 2016.  COMPLETE
7.5	Re-vegetation Report, TK Panel Session #7, 14-18 August 2014	Create safe passage for caribou over the rock pile and through the site following their old migration routes on the north and south east sides (refer to map developed during session).	Panel members felt that it was not necessary to plan too much for the animals safe passage, as caribou will ultimately go where they want and will find the ramp, road or easy way. Preference was to align the path with the old migration route and to keep the slope similar to that of the test pile - as natural as possible. There are some big rocks at the bottom of the rock pile that would need to be covered. It was seen as important to think about the slope in the winter too - how wind will deposit snow - not just when it is snow free. The berms on top of the rock pile were viewed as a barrier to caribou movement, so it would be preferred to remove them and also to remove the berm around the top of the pile.	Stewardship Seasonality	This is very similar feedback to what community members said at a 2009 workshop relating to caribou at closure. Current closure plans, most notably for the rock pile, generally support this recommendation and the underlying reasons for the recommendation.	DDMI to consider design features that support this recommendation during the next major update to the ICRP (2016).  COMPLETE
7.8	Re-vegetation Report, TK Panel Session #7, 14-18 August 2014	Allow more time for the TK Panel to discuss options for keeping animals away from certain areas (e.g. fencing).	Inuksuit are used to mark caribou crossings (nalluit) in Inuit culture. Other cultures use different techniques as well - e.g. flags, trees. More discussion on traditional and modern methods that can be used to prevent or deter animal presence in certain areas of concern may be useful. For example, some Panel members felt that a fence would be beneficial, while others felt it may be harmful and hard to maintain over time.	Stewardship Recording knowledge	DDMI proposes to hold a TK Panel session in the spring 2016 to discuss wildlife monitoring and management at closure. Further discussions to advance this concept would be well suited to this meeting.	Confirm TK Panel support for a 2016 spring session on wildlife monitoring and management at closure. If supported, DDMI to plan session for April/May 2016.  COMPLETE

DDMI TK Panel Recommendations and Response Tracking - Wildlife Monitoring & Management						
NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
9.5	Focus on Caribou, TK Panel Session #9, 13-16 May 2016	Sponsor or co-sponsor a contest to gather ideas from communities on how to help the caribou get strong.	Many Elders felt that community youth, in particular, may have some good or new ideas on ways to improve caribou numbers, health, spirit, etc that are facing the population. They felt that a contest may encourage people to submit their ideas for consideration.	Intergenerational Stewardship	Diavik views this suggestion as better suited for communities themselves to undertake and then share relevant results with various stakeholders.	N/A
9.10	Focus on Caribou, TK Panel Session #9, 13-16 May 2016	Work with Ekati on developing monitoring plans for caribou after 2025.	Community members care for the caribou as a herd and across a vast landscape that is all connected. It can therefore be difficult to differentiate monitoring requirements as being specific to one company. The synergies and benefits of working together, as was done in the past among Aboriginal communities, is viewed as a preferred approach as compared with independent monitoring initiatives.	Reciprocity Stewardship	As recommended by the Panel, site-specific monitoring to confirm that the caribou are safe on and around the Diavik site in a post-closure landscape is priority. Diavik would consider exploring opportunities with other stakeholders to evaluate a potentially more regional approach to such monitoring, but are unable to commit to such an approach at this time. Diavik understands the desire to determine how and who will coordinate future monitoring on a regional basis and we are open to such discussions as closure planning progresses.	N/A
9.14	Focus on Caribou, TK Panel Session #9, 13-16 May 2016	Focus monitoring on wildlife health and safety and possible impacts of other mines in the Lac de Gras area.	Panel members recognized that the health and safety of caribou in the area of the closed mine was of utmost importance and were interested in ensuring that post-closure monitoring programs focused on these concerns. Additionally, it was recognized that other mines may start up in the Lac de Gras area, in addition to Ekati, so possible cumulative impacts to caribou should also be considered as part of the monitoring program.	Stewardship Safety Experiential learning	Diavik agrees that monitoring to confirm that caribou are safe on and around the site in a post-closure landscape is most important. Diavik has supported regional initiatives focused on possible cumulative impacts to caribou through their own monitoring programs and providing financial assistance and in-kind support to GNWT research and monitoring programs over the years, including the geofencing collars. DDMI is committed to on-going wildlife monitoring through the closure phase, both from scientific and Traditional Knowledge perspectives.	Diavik's post-closure wildlife monitoring programs to include methods to monitor animals safety when moving on and around the Diavik site, from both scientific and Traditional Knowledge perspectives.
9.18	Focus on Caribou, TK Panel Session #9, 13-16 May 2016	Focus monitoring to determine if steps taken/closure and reclamation actions are working the way they were intended, through the following measures: - Slopes for safe passage of wildlife, boulders for keeping wildlife out of areas, the use of natural water filtering systems, the use of video cameras to detect wildlife presence, the testing of water from the North Inlet and PKC area, understanding ecosystem dynamics and the linkages between components, cumulative effects - Include plant growth, plants dying, fur & antler condition, and presence/absence of injuries or spots on the side of caribou as some of the indicators of caribou well-being - Caribou presence identified on cameras, collars, and sightings would trigger monitoring - Other animals can be indicators that the land is not healthy (e.g. smaller rodents, birds, fish can tell of change happening in larger animals like caribou, bears, etc.)	TK Panel members worked hard to develop a list of measures that should be considered as part of a caribou monitoring program for closure. It was clear that scientific studies were important and appreciated, but that traditional knowledge should also contribute to the ways in which wildlife are monitored after closure. Elders and youth alike were interested in the possibilities of monitoring using technology such as wildlife cameras and collars.	Stewardship Seasonality Experiential learning Intergenerational Safety	DDMI is grateful for the Panel's work to identify measures and indicators that can potentially be incorporated into a wildlife monitoring program for closure, most notably those based on TK. Any such programs and plans are also shared through the WLWB regulatory review process for closure planning, which includes the opportunity for community organizations to provide their comments. DDMI encourages the TK Panel to work together to develop a site-specific Traditional Knowledge monitoring program for the Diavik mine.	DDMI and the TK Panel to evaluate and consider these recommendations when developing closure monitoring programs for wildlife.

DDMI TK Panel Recommendations and Response Tracking - Wildlife Monitoring & Management						
NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
9.19	Focus on Caribou, TK Panel Session #9, 13-16 May 2016	Ensure that all communities are involved in choosing where to establish locations for wildlife cameras, etc. Build on the locations and concepts identified by the TK Panel (i.e. refer to map). Train community members to operate monitoring technologies. Start using cameras now and continue to 2030.	Panel members felt that cameras placed in certain areas could be an effective and efficient way to monitor wildlife on and around the Diavik site, both during operations and at closure. Panel members themselves identified numerous areas where cameras could potentially be deployed but also noted the importance of involving community members in selecting appropriate locations. It was recognized that cameras may be best on a seasonal basis, due to challenges to keep them running in the cold; it was seen as most important that they be operational during the caribou migrations. They noted that community members would be interested in learning how to operate these types of monitoring technologies and that Diavik could start using cameras now.	Stewardship Intergenerational Social	Diavik has been using wildlife cameras for specific programs/purposes for the past few years, mostly on a seasonal or as-needed basis. Diavik is interested in exploring possible uses for technology in closure monitoring, provided that it is effective and economical. DDMI would seek the Panel's input to confirm locations for use.	DDMI to evaluate and consider this recommendation when developing closure monitoring programs for wildlife.
9.20	Focus on Caribou, TK Panel Session #9, 13-16 May 2016	Check to see if Ekati has a camera at the caribou crossing at the Narrows; if not, Diavik should install one there.	TK Panel members noted that this is a very important area that has historically been used by caribou migrating south from the calving grounds. Establishing a camera in this area was seen as a good way to determine the number of animals using the crossing and provide a visual of the condition of the animals. This was viewed as particularly important with the development of Ekati's Jay pipe.	Stewardship	Diavik has confirmed with DDEC that they operate a wildlife camera at the Narrows.	COMPLETE
10.9	Watching/Monitoring and the WRSA-SCRIP, Session #10, 14-18 September 2017	Diavik must return East Island to a caribou-friendly state (as defined by the TK Panel and Elders), other than those areas identified as 'no-go' zones. Caribou pathways should follow caribou corridors identified through traditional knowledge.	Panel members have repeatedly said that planning for safe caribou movement will also ensure the health of other animals. The safe passage of caribou is paramount to this consideration. The Panel prefers that traditional caribou corridors be followed in areas where wildlife pathways are planned for closure.	Stewardship Respect Traditional Laws	Where infrastructure or land formations (e.g. rock pile) are placed in areas with traditional caribou trails, DDMI will work with the TK Panel and communities to identify preferred routing for trails at closure, as was done for the WRSA-NCRP. In other areas, such as roads and laydowns, Diavik plans to scarify/ rough up the surface but otherwise leave them as passable for wildlife.	Continue to work with the TK Panel and communities in planning caribou pathways and 'no-go zones' at closure, e.g. WRSA-SCRIP.

DDMI TK Panel Recommendations and Response Tracking - Landscape & Vegetation (may include references to wildlife/wildlife habitat)						
NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/ CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
Assigned by DDMI unless otherwise indicated in report	Be as specific as you think is appropriate; for example a section or page of the document, a recommendation #, general comment, etc.	Recommendations should be as specific as possible and explain an action that you believe is necessary; supporting information or rationale should be explained in the "context" column.	Context should contain all the information needed to understand the rationale for the accompanying recommendation.	Distinct values/c oncepts that are contained in Traditional Knowledge and can help to guide decision process	Responses should be as specific as possible, relating the issues raised in the "recommendation".	Actions should be as specific as possible, relating the issues raised in the "recommendation"; where possible, a timeframe may be included.
1.0	A Way of Life, 25 October 2012, pg. 9	Ensure that any caribou trails are clean and clear of debris.	TK provides insights into caribou needs. Caribou are really sensitive about their feet and knowledge passed down over generations tells that it is important to make sure that any areas where caribou travel are clean so that their feet are well taken care of. From Renewing Our Landscape: Caribou feet are really soft so they prefer to travel on sand and eskers, and sometimes hills. Sand is really important. Soft sand can be used to cover jagged rock at water crossings so that caribou can get into and out of the water safely.	Respect Safety	Additional information on what is considered 'clean' is needed in order for Diavik to implement such a recommendation when designing caribou trails for post-closure use. e.g. TK Panel members have discussed the possibility of using fine PK as sand along wildlife access areas (Session 6), but Diavik would need to evaluate the properties of PK in relation to animal health before determining if its use is suitable for caribou trails.	Diavik plans to begin a toxicological study on PK material in 2015.
1.17	A Way of Life, 25 October 2012, pg. 17	A monitoring program that includes (western) science and TK/IQ is the most practical and preferred approach.	Provide an opportunity to continue practicing and integrating different ways of knowing and learning from each other. The mine's presence makes it necessary to develop cross-cultural ways of learning and sharing knowledge. Need to be creative in collaborating with Diavik. A successful program requires good communication and strong relationships.	Reciprocity Trust Shared learning	The TK/IQ Panel is Diavik's preferred method to consider and develop closure monitoring options that incorporate science and TK/IQ. Work to develop trust and communication protocols with the Panel and communities is a part of this approach.	Revise the document "Working Together" (previously created by the Panel under EMAB) to reflect the relationship of Diavik administering the Panel.
1.18	A Way of Life, 25 October 2012, pg. 24	Work with Aboriginal knowledge holders to investigate and experiment with the possible use of deflection zones (e.g. 20 miles away from the mine and another closer to the mine), based on knowledge of migration routes that may help to guide caribou movements away from the mine.	Humans do not control nature, but must take steps to provide for caribou needs when nature has been disrupted. There is no way that you can keep an animal out of its migrating route. Its either going north or south, and they follow different routes. They will go over anything in their path. Traditionally, spruce and other markers such as inuksuit have been used to direct caribou to certain areas. These could be used to try and reduce risks and stress on animals. If they are in a straight line, caribou will follow them and they won't go inbetween the markers, even if there is a large gap. From Renewing Our Landscape: East Island is a shelter for young and injured caribou; they get to it by swimming along the channel (on the north side of the island). South of the lake is jagged rock where caribou could get injured. The east side of the lake is better; there is a sandbar, muskeg and rocks and its good for caribou migration.	Respect Stewardship Reciprocity	Current mine activity levels appear to be sufficient to deter caribou from visiting East Island. Methods such as this may be effective as the mine transitions to closure and post-closure, depending on wildlife use preferences identified for mine site areas by community members.	Work with communities, regulators and potentially other industry representatives to determine wildlife use preferences for the area of the mine after closure.
1.19	A Way of Life, 25 Oct 2012, pg. 25; Closure Reclamation & Landscape History Interim Report, 19-22 February 2013, pg.6	Ensure that TK/IQ knowledge that has been shared in the past is incorporated into future planning, specifically in relation to caribou and vegetation.	Early work that was done for Diavik's Environmental Impact Statement and other planning processes included knowledge about caribou that should be reviewed and used. Include a review of Elder site visits and best practices from the Golder Associates literature review.	Recording knowledge Respect	Diavik is interested in incorporating historical information on caribou and other areas of the environment from the companies documents, as well as external sources such as the West Kitikmeot Slave Study and community TK archives, particularly with respect to mine closure planning. The literature review that was completed by Golder Associates was a first step in identifying the type of information that is available to the public.	DDMI plans to review historical information for the LDG area in relation to caribou use and movement. Literature review of TK relating to plants in the Lac de Gras area was completed in October 2014.
2.5	Renewing Our Landscape, 7 December 2012, pg. 35	Seasonality of monitoring must be taken into consideration when planning for post-closure monitoring.	Land, water and air are the three key areas of concern for Aboriginal people. TK monitoring seasons are: winter for hare, foxes, wolverine, etc; spring for caribou; summer for fish and water; fall for berries in muskeg and plants.	Seasonality	Diavik is interested in further exploring ideas for closure monitoring with communities. Seasonality should be accounted for in these discussions.	Plan for a discussion on environmental monitoring at closure with the TK Panel.
3.4	Renewing Our Landscape, 7 December 2012, Appendix D, pg.14; Closure Reclamation & Landscape History Interim Report, 19-22 February 2013, pg.5	Leave the airstrip intact with one or two small buildings nearby; do not revegetate it.	Excellent infrastructure for the north as an emergency landing strip for aircraft. A small building can provide emergency shelter, or shelter for those using the area for hunting or fishing.	Reciprocity Safety	Maintenance and liability issues are the key challenges with leaving the airstrip and/or a small building after closure. Diavik would be open to Transport Canada or another party acquiring this airstrip. Alternatively, Diavik would consider leaving the airstrip intact (no reclamation, no on-going maintenance/liability), were this to be preferred by communities & approved by the Board.	Review such considerations prior to finalizing this aspect of the closure plan.

DDMI TK Panel Recommendations and Response Tracking - Landscape & Vegetation (may include references to wildlife/wildlife habitat)						
NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/ CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
4.1.2	Checking Nets, 23-25 October 2012, pg.18; Closure/Reclamation and Landscape History Interim Report, 23-25 October 2012, pg.8	Diavik should carry out and make public a review of its use of TK/IQ in its environmental plans and programs. This review should document the successes and lessons learned from TK/IQ studies, and what changes or improvements in adaptive management can be attributed to TK/IQ.	Key concerns in relation to this recommendation are whether Diavik is doing what they said they would do, and community members are concerned with repeating themselves over the years without seeing any results from their suggestions. Community members feel that Diavik needs to demonstrate their use of TK, in respect to the Elders.	Respect Reciprocity	DDMI had a report prepared by Golder Associates titled "Literature Review of Traditional Knowledge Related to the Resource Sector - July 2011". Beyond this, DDMI does not feel that it is necessary to produce a separate report that documents where TK/IQ has been incorporated into its past processes. Many of these initiatives were established during the early years of the mine and it would be difficult to effectively represent the knowledge and provide lessons learned.	Looking forward, DDMI plans to use this response tracking system to document use of TK/IQ recommendations from the Panel. Past TK/IQ projects will be reviewed as necessary for individual topic discussions, e.g. re-vegetation.
5.4	Closure Reclamation & Landscape History Interim Report, 19-22 February 2013, pg.5	Smooth slopes on the sides of roads and the airstrip so that they are less steep, and remove large boulders from these areas. Scarify engineered surfaces such as the camp areas, plant site, roads and laydowns. Revegetate to support biodiversity.	Consider revegetating the sides of the airstrip and roads so that they can filter runoff, but avoid revegetating the surfaces. Keep all roads to the pits and airstrip in tact to allow access for monitoring. Sides of old roads and the airstrip should be made less steep and revegetated to filter runoff. They should be relatively smooth and free of boulders so that wildlife can move over the areas safely.	Respect Safety	The current closure plan supports this recommendation and includes contouring of roads, restoration of drainage, surface scarification and revegetation. Some travel routes will be planned, connecting key areas of the old mine footprint for human and wildlife travel.	N/A
5.5	Closure Reclamation & Landscape History Interim Report, 19-22 February 2013, pg.5	Remove equipment, unused buildings, pipes, toxic materials and non-biodegradable items from the island.	Panel members refer to traditional practices of always leaving a clean campsite and respecting the land for your use. Buildings, equipment and materials no longer needed should be redistributed to Aboriginal communities if requested.	Stewardship Reciprocity	An approved landfill exists at Diavik (within the rock pile) and will continue to be used for non-hazardous waste materials. Hazardous materials are backhauled off site on the winter road. An evaluation of building or equipment condition would need to be conducted in advance of providing any materials to communities; if the materials were deemed suitable, Diavik would be interested in communities acquiring such items.	Determine salvage options for mine site materials on a case-by-case basis.
7.1	Re-vegetation Report, TK Panel Session #7, 14-18 August 2014	Do not disturb new areas and protect natural vegetation areas that exist on the Island (with the exception of planned development areas for A21, the rock pile for A21 and any future closure work that involves covering natural vegetation in order to flatten slopes for safe wildlife passage).	Panel members were able to visit areas of natural vegetation and most were happy with how these looked, and recognized the importance of preserving these, where possible. Comments: "I was looking for dust on berries and willows, but I saw that they were pretty clean; seeing it first hand helps." "The berries and leaves in the undisturbed areas look the same as before." "I feel peaceful and good after going out on site; I saw a fox and wolf and ground squirrels." "There were caribou trails at the south side of the airstrip; it looks good. Its good to see the land looks healthy." Panel members also recognized that it is important to balance preservation of natural vegetation with making sure that wildlife can pass through the site safely. For example, participants felt it more important to widen the base of any future rockpile associated with the A21 development, in order for the pile to be lower and less steep for wildlife movement.	Stewardship Natural condition Experiential learning Respect	DDMI understands and respects community interests in protecting areas of natural vegetation that remain on the mine site property while recognizing where it may be beneficial to lose some natural areas in order to promote the safe passage of wildlife through the mine property. The Panel has provided clear guidance on where and when it is appropriate to cover natural vegetation and this aligns well with DDMI's closure plan.	DDMI to consider design features that support this recommendation during the next major update to the ICRP (2016).
7.2	Re-vegetation Report, TK Panel Session #7, 14-18 August 2014	Study vegetation east and north of the Island to understand good caribou habitat.	Participants felt that tundra vegetation is very powerful; like there is something underneath that is helping it. They noted the importance of moisture for growth. Many participants felt that the environment is powerful, that nature will heal itself and that vegetation at the mine site will grow again on its own. Others felt that what has happened on East Island is not natural, so it cannot be left to Nature alone to heal; Nature needs help in this case. Still others noted that climate change will result in differences; e.g. willows are taller now at places where Panel members used to camp and different species are coming to the north (which Elders predicted in the past). Some participants thought that vegetation on the East Island is different from the mainland (and that this could be from human activity, introduced species or climate change).	Experiential learning Natural condition	Since 2010, DDMI has incorporated a TK component to the lichen study that is conducted on East Island and the mainland. The main focus of the TK component of this study is to identify plants and habitat areas that are used by caribou in various locations on the tundra, up to 40 km (25 mi) away from the mine. This study is done every 3 years and is next planned for 2016.	DDMI to review questions posed to community members in the lichen TK study with the TK Panel and determine if any changes are needed to reflect the Panel's recommendation.

DDMI TK Panel Recommendations and Response Tracking - North Country Rock Pile (NCRP)						
NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/ CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
<i>Assigned by DDMI unless otherwise indicated in report</i>	<i>Be as specific as you think is appropriate; for example a section or page of the document, a recommendation #, general comment, etc.</i>	<i>Recommendations should be as specific as possible and explain an action that you believe is necessary; supporting information or rationale should be explained in the "context" column.</i>	<i>Context should contain all the information needed to understand the rationale for the accompanying recommendation.</i>	<i>Distinct values/ concepts that are contained in Traditional Knowledge and can help to guide decision process</i>	<i>Responses should be as specific as possible, relating the issues raised in the "recommendation".</i>	<i>Actions should be as specific as possible, relating the issues raised in the "recommendation"; where possible, a timeframe may be included.</i>
2.2	Renewing Our Landscape, 7 December 2012, pg. 22	Do not allow water to pool on top of the rock pile	Once a small pool of water forms, it gets bigger and becomes a lake that attracts animals. Animals then start to use it. Because the Panel is concerned with the quality of water within or flowing from the pile, there is concern for the health of caribou and other wildlife.	Stewardship	Diavik is not planning to have a water pond on top of the rock pile at closure.	N/A
2.3	Renewing Our Landscape, 7 December 2012, pg. 23	Have a 'moat' around the rock pile as a way of being able to contain and monitor the water that is coming out of the pile.	Relates back to the concern of water quality coming off/out of the pile. Eskers have cold water flowing out of them because of the permafrost within the esker. The same is likely to happen with the rock pile as permafrost builds up within the pile over the years.	Stewardship	The existing collection ponds surrounding the rock pile serve this purpose and current plans have the ponds remaining until adequate water quality has been demonstrated.	N/A
2.6	Renewing Our Landscape, 7 December 2012, pg. 45; Appendix D, pg. 8	Some revegetation should be planned for the rock pile. Consider use of good, black soil from the tundra or other eskers in the area. Plant native shrubs such as dwarf birch and willow in the soil near the bottom and allow the remainder to revegetate naturally.	Respect for the land includes respecting natural systems - there is a reason for each plant being there. Introduced species can be harmful and quickly take over; preference is to use naturally occurring plants. Using soil from elsewhere may be acceptable because the Diavik island is a traditional place for caribou to roam and is a good feeding/resting area; another option is to use till from A21. Revegetation will take time but it is the right thing to do. Consider visiting old archaeological sites or other esker sites to view re/growth; exposure will dictate what grows where (shade, leeward, side, top).	Respect Stewardship	The current closure plan does not account for revegetation on the rock pile. Harvesting soils from outside the mine footprint is not being considered. Re-vegetation priority for DDMI is still plant site, laydowns and roads.	N/A
3.1	Renewing Our Landscape, 7 December 2012, Appendix D, pg.6; Closure Reclamation & Landscape History Interim Report, 19-22 February 2013, pg.4	Simulate an esker when considering the final shape of the rock pile.	Traditional stewardship means leaving things as natural as possible. Make it look as natural as possible by imitating the effects of glaciers and prevailing easterly winds on the surrounding landscape. This includes sloping the top edges so they are rounded, sloping the sides so they are less steep (similar to the test pile) and have varying levels of steepness. Place rock from the pile back into the pit. The top should be flat with berms removed so that caribou can walk safely as there would be fewer places for predators to hide; they may want to use the hill to get away from bugs. Big boulders should be removed, particularly at the bottom of the pile and on the north slope, as wildlife will likely get injured trying to walk over them. The north side should be the most gradual slope, as this will be the area for wildlife and people to access the top.	Stewardship	Simulating a large esker is a preferred approach to re-shaping the rock pile. Closure plans do not include placing rock back in the pit. Diavik anticipates that re-shaping efforts would eliminate the need for large boulders to be removed.	N/A

DDMI TK Panel Recommendations and Response Tracking - North Country Rock Pile (NCRP)						
NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/ CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
3.2	Renewing Our Landscape, 7 December 2012, Appendix D, pg.7; Closure Reclamation & Landscape History Interim Report, 19-22 February 2013, pg.5	Safe wildlife access needs to be considered for all seasons when designing the final shape of the rock pile. There needs to be soft material in areas where caribou will be; consider the use of PK material for animal paths.	Prevailing winter winds (NE) will result in a smooth snow cover that drops straight down on the lee side of the pile so need to consider TK/IQ in relation to snow drifts. In summer, caribou will go on top of the pile to avoid flies; consider having something for them to eat up there. In fall, caribou will swim across to the island from the northwest, following their old migration path; consider having a caribou ramp across the pile that connects with this access point. Use waste rock to slope the pile and consider an esker 8 miles NE of Diavik as an example. Refer to comment 1.0, Landscape for further information on suitable materials for caribou feet.	Seasonality Stewardship Respect	A caribou 'ramp' (safe access on, off and across the pile) for the rock pile is included in the current version of the closure plan. Additional ideas on design options to provide safe access for wildlife are being discussed with communities, along with technical considerations for design and performance. Diavik would need to evaluate the properties of PK in relation to animal health before determining if its use is suitable for caribou trails.	Diavik plans to begin a toxicological study on PK material in 2015.
3.3	Renewing Our Landscape, 7 December 2012, Appendix D, pg.12 & 13	Channel water flow to prevent contaminants from reaching Lac de Gras.	Consider using geotextile to line drainage channels downstream of the pile and revegetate these areas. Snow drifts and areas of accumulation need to be considered when planning for drainage. The lake water needs to remain healthy as the people of Kugluktuk live downstream.	Stewardship Reciprocity	Closure plans for the mine consider the use of drainage paths that allow additional time for water to travel over the tundra before reaching Lac de Gras. Diavik's closure goals include land and water that is physically and chemically stable and safe for people, wildlife and aquatic life.	N/A
5.1	Closure Reclamation & Landscape History Interim Report, 19-22 February 2013, pg.4	Preference is to lower the height of the rock pile. However, if that is not possible, keep the rock pile height as low as possible while ensuring that contaminants within the Type II and III rock areas are contained.	The biggest concern that Panel members have is chemicals seeping from the pile into the lake or being injected by wildlife drinking the water. While the pile is considered an eyesore and Panel members would like to see it smaller (lower) on account of wildlife concerns, participants also recognize that it is most important for the pile to function well in containing chemicals from entering the environment.	Stewardship Respect	The rock pile has reached its maximum height and matches what was originally permitted for the mine, though capping materials will result in a slightly higher final elevation. Diavik's primary closure goal is to contain Type II and III rock and ensure that water quality from the rock pile seepage is safe for wildlife and humans.	N/A
5.2	Closure Reclamation & Landscape History Interim Report, 19-22 February 2013, pg.4	Cap the rock pile with the best materials for biodiversity based on TK and science, using nearby hills as a reference.	Many Panel members believe that nature needs a helping hand; it will heal itself, but conditions to allow re-growth need to be created. Everyone recognizes that things grow slowly in the north, but that over time the area should heal. Panel members desire to see the land as close as possible to how it looked before is the main factor in guiding recommendations. While it is acknowledged that the area will never be the same again, efforts to reclaim areas in a way that resemble natural features is preferred.	Nature is self-healing Stewardship	Material availability will be an important aspect of closure planning. Diavik's preference is to use materials available at the mine site, without having to disturb other areas. Mine rock and till will be the materials available in greatest supply and these are currently being considered for use in capping the rock pile.	Investigate areas that have naturally revegetated around the mine site; evaluate species and substrates.
5.3	Closure Reclamation & Landscape History Interim Report, 19-22 February 2013, pg.5	Experiment with different types of wetlands for filtering water that collects at the base of the rock pile.	Traditionally, people tried different things to solve problems and TK holders want to be involved in any new experiments. This method should be combined with current or alternate purification system(s) to treat remaining contaminants. There are opportunities for Aboriginal people to be trained to do this type of monitoring. Panel members recognize that it is not ideal to have a water treatment plant on site forever and that more natural treatment options, similar to many used in communities, are preferred in the long term.	Stewardship	Wetland drainage has been effective in this area in the past and that is what is currently planned for managing water from the rock pile.	Determine preferred drainage pathways, and possibly associated plant life, that would result in water that is safe for humans and wildlife.
EMAB-2	Environmental Monitoring Advisory Board TK/IQ Panel Recommendations from February 2013, Letter from EMAB, 8 Oct 2013, pg.2	EMAB recommends that Diavik incorporate into its ICRP research the following question: Will vegetation on the waste rock pile increase snow trap, which will increase run off and increase the chance of leaching?	TK/IQ Panel members have highlighted considerations for snow accumulation in relation to prevailing winds, but have not discussed this in relation to vegetation on the pile.	Stewardship	Not supported as current closure plans for the rock pile do not include revegetation.	N/A

DDMI TK Panel Recommendations and Response Tracking - North Country Rock Pile (NCRP)						
NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/ CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
EMAB-3	Environmental Monitoring Advisory Board TK/IQ Panel Recommendations from February 2013, Letter from EMAB, 8 Oct 2013, pg.2	EMAB recommends that Diavik shape rock piles in a way that directs freshet runoff away from Lac De Gras through natural wetlands in order to naturally filter the runoff.	Supports discussions of the TK/IQ Panel preferences of wetland treatment and diverting water away from Lac de Gras for as great a distance as possible.	Nature is self-healing Stewardship	Diavik supports this approach wherever possible but notes that runoff and seepage will eventually reach Lac de Gras. Suggest re-wording to: "...direct freshet runoff and seepage away from Lac de Gras and through seepage wetlands <i>for as long a distance as possible</i> ..." Diavik has also applied this recommendation to the proposed PKC closure option.	N/A
7.9	Re-vegetation Report, TK Panel Session #7, 14-18 August 2014	Create slopes on the rock pile similar to that on the test pile to support safe travel for animals.	Panel members felt that it was not necessary to plan too much for the animals safe passage, as caribou will ultimately go where they want and will find the ramp, road or easy way. Preference was to align the path with the old migration route and to keep the slope similar to that of the test pile - as natural as possible. Boulder size and angles were also a concern. Panel members noticed some big, sharp rocks at the bottom of the north country rock pile that would need to be covered. It was seen as important to think about the slope in the winter too - how wind will deposit snow - not just when it is snow free. The berms on top of the rock pile were viewed as a barrier to caribou movement, so it would be preferred to remove them and also to remove the berm around the top of the pile.	Stewardship Seasonality	This is very similar feedback to what community members said at a 2009 workshop relating to caribou at closure. Current closure plans, most notably for the rock pile, generally support this recommendation and the underlying reasons for the recommendation.	DDMI to consider design features that support this recommendation during the next major update to the ICRP (2016).
8.30	Reefs & Monitoring Water Report, TK Panel Session #8, 2-4 December 2015	Ensure long term scientific monitoring of NCRP to determine if it remains frozen and stable.	The NCRP has been identified as one of the main concerns of Panel members who feel that climate change may affect its integrity and release contaminated water into the environment. As such, Panel members want to make sure that pile remains frozen in the core, as it was designed to be.	Stewardship Intergenerational Seasonality	Many stakeholders are interested in the performance and integrity of the rock pile. As such, long-term monitoring plans would be incorporated into the development of the post-closure monitoring program.	Outline post-closure monitoring plans for the mine site, most notably those specific to the NCRP.
9.1	Focus on Caribou, TK Panel Session #9, 13-16 May 2016	Re-vegetate the base of the NCRP around the ponds.	While some members of the TK Panel initially hoped that the NCRP would be re-vegetated, others preferred to let nature take its course and heal itself over time. After much discussion, Panel members concluded that it would be beneficial to focus re-vegetation efforts to the areas where ponds are located at the base of the NCRP. This would help to both naturally filter water coming in to or flowing out of the ponds, as well as to possibly help the pile re-vegetate naturally over time.	Stewardship Nature is self-healing	Diavik has not yet finalized the closure plans for the ponds at the base of the NCRP, but the TK Panel's recommendation for these areas will be considered when developing these plans.	Update the TK Panel once Diavik has determined a preferred closure plan for the ponds at the base of the NCRP.
9.2	Focus on Caribou, TK Panel Session #9, 13-16 May 2016	A limited number of large boulders (e.g. 3-4) should be placed on top of the NCRP to provide some shade for caribou, create habitat for small mammals and encourage natural re-vegetation	Panel members felt that a small number of large boulders could be beneficial for caribou, without harming the chemical stability of the pile. Many members think that caribou will go up the pile, primarily to get away from bugs, so it would be good to have some shade for them. If there were only a small number, it would be unlikely that they would be used by predators, but they could create habitat for smaller mammals as well as help with natural re-vegetation by sheltering seeds and water/snow to encourage growth.	Stewardship Seasonality Natural Condition	While there are no current plans to incorporate a small number of large boulders on top of the NCRP, Diavik would consider adding these if communities identified a need for these as a result of observations from a TK monitoring program, or discussions with Elders once the final landscape of the NCRP can be observed. The Final Closure Plan for the NCRP also identifies this option for future consideration.	N/A

DDMI TK Panel Recommendations and Response Tracking - North Country Rock Pile (NCRP)						
NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/ CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
9.3	Focus on Caribou, TK Panel Session #9, 13-16 May 2016	Study the wind and snow accumulation on caribou ramps/trails as well as the top of the NCRP before finishing/finalizing the sloping and grading of the NCRP.	The Panel wants to be sure that the caribou/wildlife pathway that was located along a route recommended by community members will allow safe access throughout the year, including during spring conditions when the caribou are heading north. It would be beneficial to study the wind and snow accumulation along the pathways to determine if the conditions are safe for caribou or other wildlife passage in all seasons. If this is done before the pile is completely finished, the Panel feels that Diavik should be able to fix any grading or sloping issues that communities may identify.	Stewardship Intergenerational Seasonality Safety	Diavik appreciates this suggestion and hopes that the TK Panel incorporates this monitoring into a site-specific, Traditional Knowledge wildlife monitoring program for the Diavik mine.	Support the process for the Panel to develop a TK Monitoring Program for the mine site.
9.4	Focus on Caribou, TK Panel Session #9, 13-16 May 2016	Ensure a gradual slope on the top of the NCRP so that there is a slight dome down the centre.	Panel members wanted to ensure that any water or snow that may fall or collect on the top of the pile would naturally drain off of the pile. This would minimize the amount of water that could seep into the pile. The Panel considers this another way to make sure that there is long-term protection for the land and water. Once there are no more people at the site, the water and snow must be able to drain safely off the pile.	Stewardship Intergenerational Seasonality Safety	Diavik appreciates this suggestion. The Final Closure Plan and design for the North Country Rock Pile includes this feature.	COMPLETE
10.1	Watching/Monitoring and the WRSA-SCRIP, Session #10, 14-18 September 2017	Avoid disturbing new areas (e.g. tundra) with A21 material at the SCRIP as much as possible. The proposed SCRIP area is part of a major caribou migration and feeding corridor and should not be disturbed.	The TK Panel recognizes the importance of the SCRIP area to caribou and would prefer that this area not be developed. However, recognizing that the SCRIP location has already been approved and established, they are interested in minimizing the size (footprint and height) of the SCRIP.	Stewardship Safety	Diavik shares the opinion of the Panel and prefers to utilize A21 material for other purposes (i.e. NCRP closure cover), thereby reducing the overall size of the SCRIP. Diavik has now obtained regulatory and financial approvals to proceed with constructing the NCRP cover. This will begin in spring 2018, and A21 rock and till will be used for the cover. Other opportunities for the use of A21 materials for closure will continue to be evaluated as the CRP progresses.	COMPLETE
10.2	Watching/Monitoring and the WRSA-SCRIP, Session #10, 14-18 September 2017	If this area must be used, minimize the size (i.e. volume/amount) and height of the SCRIP and slope all sides like an esker so that animals can easily walk over it. We recommend the slope should be at 3:1.	The TK Panel has evaluated the covered test pile and observed the re-sloping efforts undertaken on the NCRP. The 3:1 slope on these structures has been supported for the safe movement of wildlife and the Panel is interested in applying that same design to the SCRIP at closure.	Stewardship Safety	While the SCRIP is being constructed, side slopes will be at the angle of repose. As noted above, Diavik's preference is to minimize the size of the pile, however current closure plans do not provide for re-sloping the entire pile, as no closure cover is necessary for the SCRIP. A wildlife pathway has been planned, and that would be re-sloped (3:1) and smoothed to facilitate safe movement across the pile.	N/A
10.3	Watching/Monitoring and the WRSA-SCRIP, Session #10, 14-18 September 2017	If the SCRIP is large, designated pathways become more important and must follow caribou routes known through TK.	Recognizing that there is a possibility that the SCRIP could include all the rock from A21 (i.e., if the NCRP cover is not approved) and that the sides of the SCRIP may not be re-sloped, the Panel notes that designated wildlife pathways would be very important, and that they must be safe and utilize known caribou routes across the pile.	Stewardship Safety	Diavik has currently planned for pathways over and across the SCRIP at closure. We will work with the TK Panel and/or other community contacts as required to finalize their location prior to closure.	Work with the TK Panel and communities to confirm the recommended route for a wildlife pathway(s) on the SCRIP at closure.
10.4	Watching/Monitoring and the WRSA-SCRIP, Session #10, 14-18 September 2017	We recommend that rock from A21 that could go to SCRIP be used to cover the NCRP.	The Panel applies their traditional approach of respecting everything nature provides to mine closure planning. The 'waste' rock supplied by mining activities in A21 should be used wherever possible, rather than simply being discarded into a pile on the tundra.	Stewardship Traditional Laws	Diavik is in agreement with the TK Panel and was awaiting approval on the NCRP cover from the WLWB at the time of Session 10. DDMI has since received the necessary approvals for the cover and plans to begin progressive reclamation of the NCRP, that includes using rock from A21 that would otherwise go to the SCRIP, in the spring of 2018.	COMPLETE

DDMI TK Panel Recommendations and Response Tracking - North Country Rock Pile (NCRP)						
NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/ CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
10.5	Watching/Monitoring and the WRSA-SCRIP, Session #10, 14-18 September 2017	Drain the pond that would be covered by the SCRIP before using the proposed area.	The Panel understands that the pond under the proposed SCRIP is non-fish bearing and prefers to have this drained prior to filling it with rock. There were two reasons for this: one was to prevent that water flowing over the tundra to Lac de Gras and the second was to allow more room for rock to fill the area, because it would be covered anyway.	Stewardship	Diavik notes that this was not originally planned for the pond identified. This was a very helpful observation and recommendation that was completed during the fall of 2017.	COMPLETE
10.6	Watching/Monitoring and the WRSA-SCRIP, Session #10, 14-18 September 2017	Have all SCRIP water tested (both science and TK) before releasing into Lac De Gras.	As noted in past TK Panel sessions, Panel members see value in both scientific and TK monitoring of water on East Island at closure. Water that would flow from the mine area to Lac de Gras should be tested at closure, similar to what is done during operations.	Stewardship Safety	Diavik continues to work with the TK Panel to identify more specific locations for closure and post-closure monitoring and we agree that the drainage channel from the SCRIP is important to sample. DDMI plans to establish a monitoring station in this location.	Plan for a water quality monitoring station for SCRIP runoff at closure.
10.7	Watching/Monitoring and the WRSA-SCRIP, Session #10, 14-18 September 2017	Use natural filtration methods in areas where water will run off the SCRIP on site.	As noted in past TK Panel sessions, nature has the ability to heal and natural filtration to treat runoff water (e.g. rain, snow melt) at closure is encouraged. Runoff water from the site should be routed to travel across the tundra and naturally undergo some filtration before entering Lac de Gras.	Stewardship Traditional Laws Natural Condition Nature is self-healing	There are no plans for infrastructure in the area downstream of the SCRIP where drainage water would flow at closure. As such, the water will flow over native tundra allowing natural filtration to occur before reaching Lac de Gras. While it is not a particularly long drainage path, it will exist.	Continue to identify areas where runoff water from the mine can travel across the tundra at closure, prior to entering Lac de Gras.
10.8	Watching/Monitoring and the WRSA-SCRIP, Session #10, 14-18 September 2017	Diavik must plan for the same values, principles and goals held by the TK Panel for the NCRP, to the SCRIP (e.g. maintain low height, 3:1 slope for caribou).	The TK Panel has evaluated the covered test pile and observed the re-sloping efforts undertaken on the NCRP. The 3:1 slope on these structures has been supported for the safe movement of wildlife and the Panel is interested in applying that same design to the SCRIP at closure.	Stewardship Safety	Diavik has now obtained the necessary approvals to be able to use A21 rock to cover the NCRP. We are also evaluating other options for using A21 rock for reclamation material as closure planning for the site continues. This would help to reduce the overall size of the SCRIP. Diavik is planning for a wildlife pathway across the SCRIP, with reduced slope angles that we anticipate to be at 3:1. However, the remainder of the pile is not currently planned to be re-sloped. The reason for this is that there is no need for a cover on the SCRIP as it contains no T3 rock.	Work with the TK Panel and communities to confirm the recommended route and design for a wildlife pathway on the SCRIP at closure.

DDMI TK Panel Recommendations and Response Tracking - Processed Kimberlite Containment (PKC) Area						
NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
Assigned by DDMI unless otherwise indicated in report	Be as specific as you think is appropriate; for example a section or page of the document, a recommendation #, general comment, etc.	Recommendations should be as specific as possible and explain an action that you believe is necessary; supporting information or rationale should be explained in the "context" column.	Context should contain all the information needed to understand the rationale for the accompanying recommendation.	Distinct values/concepts that are contained in Traditional Knowledge and can help to guide decision process	Responses should be as specific as possible, relating the issues raised in the "recommendation".	Actions should be as specific as possible, relating the issues raised in the "recommendation"; where possible, a timeframe may be included.
6.1	Processed Kimberlite Containment Interim Report, 24-28 October 2013, pg. 5	Cover PKC area with a combination of natural sand and soil to ensure that the PKC is not over-heating the area (and melting permafrost) and to support natural re-vegetation	Concern was expressed that the dark colour of both the coarse PK and the liner would attract more sun (heat) that would result in permafrost melt. There was also a desire to see the area revegetated as Panel members expect that caribou and other wildlife will attempt to access the area after closure.	Stewardship Respect	The revised closure plan discussed in the October 2013 TK Panel session was approved by the WLWB in May 2014. The current plan includes a rock cover that would be lighter in colour and serve the same purpose as the sand and soil cover proposed by the TK/IQ Panel. The rock cover required to contain the Processed Kimberlite and protect it against wind & water could limit opportunities for revegetation.	Determine relative importance of overall function compared to specific material use with communities.
6.2	Processed Kimberlite Containment Interim Report, 24-28 October 2013, pg. 5	If there were eskers within the PKC area, reclaim these to their original state or as close as possible	A key goal expressed by the TK Panel was to return the landscape to a more natural state.	Natural condition	Need to consider technical requirements that would provide stability of the dam structure after closure. This is likely to limit the ability to re-design the PKC area with features such as an esker.	N/A
6.3	Processed Kimberlite Containment Interim Report, 24-28 October 2013, pg. 5	Re-vegetate the PKC area according to baseline traditional knowledge and science	A key goal expressed by the TK Panel was to return the landscape to a more natural state. Panel members thought that vegetation may help to stabilize the ground.	Natural condition Nature is self-healing	The current closure plan does not include revegetation of the PKC area. It is unlikely that vegetation would help to stabilize the ground in this area given the substrate, cover materials and permafrost development, and also in consideration of the limited root systems of sub-arctic plants. Lichen development on rock/ boulders may develop over time.	In consultation with communities, conduct further research and advance the plan for the PKC closure concept approved by the WLWB in May 2014.
6.4	Processed Kimberlite Containment Interim Report, 24-28 October 2013, pg. 5	Create wildlife habitat and stabilize ground with transplanted willow	TK/IQ Panel members first leaned toward deterring animals from using this area after closure, but the Panel came to realize through their discussions that caribou and other wildlife will attempt to access the area after closure. For this reason, the vision of the Panel for this area shifted to recreating habitat similar to what was present before the mine was constructed. A key concern that Diavik noted was the instability of the fine PK 'flatlands' or 'beaches' that are contained inside the PKC dam.	Natural condition	The current closure plan does not include revegetation of the PKC area. It is unlikely that vegetation would help to stabilize the ground in this area. Diavik would need to explore possible options and their associated risks if revegetation of the PKC was to be considered.	In consultation with communities, conduct further research and advance the plan for the PKC closure concept approved by the WLWB in May 2014.
6.5	Processed Kimberlite Containment Interim Report, 24-28 October 2013, pg. 5	Create marshy areas with moss, lichen and berries	This type of vegetation would provide a food source and safe travelways for animals. It would also resemble what the area looked like before the mine was built.	Natural condition	The main focus in closing the PKC is to direct PKC seepage and/or runoff water to marshy areas on the tundra that have moss cover and allow for natural filtration. It is currently preferred to keep the flatland area within the PKC dams dry and sloped toward a planned pond. This would help to stabilize the PK underneath the cover material.	N/A

**DDMI TK Panel Recommendations and Response Tracking - Processed Kimberlite Containment (PKC) Area**

<b>NUMBER</b>	<b>REFERENCE</b>	<b>RECOMMENDATION</b>	<b>CONTEXT</b>	<b>TK VALUE/CONCEPT</b>	<b>DDMI RESPONSE</b>	<b>DDMI ACTION ITEMS</b>
6.6	Processed Kimberlite Containment Interim Report, 24-28 October 2013, pg. 5	Removal of the slime from the mine site upon closure.	Traditional laws and stewardship of the land imply that you do not leave human-made materials behind as it is harmful to water, air or animals. The removal of slime provides a level of comfort and certainty to northern communities that is not otherwise available. This preference is based on the acknowledged problems created by leaving the slurry/slime onsite, in particular safety concerns for people and wildlife and the uncertainties associated with impacts from environmental change (e.g., a rise in temperature and associated drought, permafrost melting, earthquakes) long into the future. Further, it provides an opportunity to return the landscape to a more natural state which is a key goal expressed by the TK Panel throughout sessions to date.	Stewardship	Diavik understands the motivation to remove the slimes from site. However, should the material prove to be non-toxic to people and wildlife, Diavik plans to leave the slimes on site. Should the material be used or accessible to wildlife (directly or indirectly) at closure, it would be beneficial to conduct a toxicological study on the material.	Diavik plans to begin a toxicological study on PK material in 2015.
6.7	Processed Kimberlite Containment Interim Report, 24-28 October 2013, pg. 5	Removing the slime offsite remains the preferred option until Diavik can demonstrate through chemical and toxicological analysis that the slime is not harmful to the environment (i.e. plants, wildlife, fish, and humans).	Upon discussion, Panel members stated that should the slimes prove to be non-toxic, they would be more willing to assess on-site containment options for this material. TK holders need to see for themselves that something is not harmful to the environment. Participants would want to be confident in the results of the scientific testing.	Stewardship	Should the material prove to be non-toxic to people and wildlife, Diavik plans to leave the slimes on site and determine the preferred method for containment that allows for safe use or passage of wildlife in the PKC area.	Diavik plans to begin a toxicological study on PK material in 2015.
6.8	Processed Kimberlite Containment Interim Report, 24-28 October 2013, pg. 6	Return the lake and shoreline to their natural states, as much as possible (e.g. gradual slope)	This approach would create safe access for wildlife, as it is assumed that wildlife will try to use this area after closure.	Safety Respect	It is likely that the shoreline of any reclaimed pond will differ from a natural pond, but it may be possible to recreate some elements of interest to communities.	DDMI conducted a literature review to identify examples of re-vegetation efforts undertaken in northern climates. Completed in October 2014.
6.9	Processed Kimberlite Containment Interim Report, 24-28 October 2013, pg. 6	Ensure that the shoreline (of the PKC lake) is stable and that rocks are of the correct size to be safe for wildlife, especially caribou.	This approach would create safe access for wildlife, as it is assumed that wildlife will try to use this area after closure.	Safety	Another closure goal for Diavik is to have land areas that are physically stable and safe for people, wildlife and aquatic life.	In consultation with communities, conduct further research and advance the plan for the PKC closure concept approved by the WLWB in May 2014.
6.10	Processed Kimberlite Containment Interim Report, 24-28 October 2013, pg. 6	Line the lake bottom with granite, gravel and rocks and other natural materials that were there before	Create a more natural and stable lake bottom that would be safe for caribou use during the warm months.	Natural condition	One of Diavik's closure goals is to create a final landscape guided by pre-development conditions & TK. Consideration of materials available and suitable for use are evaluated as part of the closure planning process.	In consultation with communities, conduct further research and advance the plan for the PKC closure concept approved by the WLWB in May 2014.
6.11	Processed Kimberlite Containment Interim Report, 24-28 October 2013, pg. 6	Re-vegetate the lake with water plants of this area	Such plants contribute to biodiversity as they are a food source for other fish and animals. Plants feed fish but may also clean the water that wildlife may to drink and birds are likely to land on.	Natural condition	Current closure plans do not include revegetating lakes with water plants. Because the water pond within the PKC would not be stocked with fish (see below), efforts would also not be made to revegetate lakes with water plants. DDMI prefers to construct this lake in a manner that would not attract wildlife or promote its use.	N/A

**DDMI TK Panel Recommendations and Response Tracking - Processed Kimberlite Containment (PKC) Area**

<b>NUMBER</b>	<b>REFERENCE</b>	<b>RECOMMENDATION</b>	<b>CONTEXT</b>	<b>TK VALUE/CONCEPT</b>	<b>DDMI RESPONSE</b>	<b>DDMI ACTION ITEMS</b>
6.12	Processed Kimberlite Containment Interim Report, 24-28 October 2013, pg. 6	Re-stock lake with fish and bugs	The desire of Panel members is to recreate pre-mine conditions. The limitations of water movement after closure were discussed in relation to elevation changes in this area; historic water flow patterns between Lac de Gras and the PKC area that would be necessary to support fish and bug life would be incredibly difficult to achieve.	Natural condition	Current closure plans do not include re-stocking fish and bugs in East Island lakes, and this includes the lake within the PKC area. Water flow patterns that would be similar to historic conditions and possibly allow for fish and bug life in the PKC pond are not planned for this area. As discussed, elevation changes from mine development would prevent this from occurring.	N/A
6.13	Processed Kimberlite Containment Interim Report, 24-28 October 2013, pg. 6	Recreate small ponds along the drainage route to encourage settling and healing of the water and fish habitat	There is a strong belief expressed by the Panel that nature heals itself and that it can be disrespectful to interfere with nature, but that humans can help to create the conditions to support healing. Encouraging longer drainage paths that utilize small ponds increases the chance of having cleaner water when it reaches Lac de Gras.	Nature is self-healing	Diavik agrees with this recommendation and the proposed drainage path for a pond within the PKC area flows across the tundra, and passes through 3 small ponds along the way.	In consultation with communities, conduct further research and advance the plan for the PKC closure concept approved by the WLWB in May 2014.
6.14	Processed Kimberlite Containment Interim Report, 24-28 October 2013, pg. 6	Support the drainage streams to encourage fish to migrate from Lac de Gras to the reclaimed lake	The desire of Panel members is to recreate pre-mine conditions. The limitations of water movement after closure were discussed in relation to elevation changes in this area; historic water flow patterns between Lac de Gras and the PKC area that would be necessary to support fish and bug life would be incredibly difficult to achieve.	Natural condition	The footprint of the PKC extends close to the shoreline of Lac de Gras which could make it very difficult to reduce the slope of the dam in some key areas. The elevation difference for the PKC area at closure will be significant when compared with the original lake in that area, making it very difficult to re-establish baseline conditions. Technical considerations also need to be taken into account; the dam walls still need to contain PK material that would remain after closure.	N/A
6.15	Processed Kimberlite Containment Interim Report, 24-28 October 2013, pg. 6	Make the closure lake as similar to the original lake, as much as possible	The desire of Panel members is to recreate pre-mine conditions and plan for safe usage of the area by wildlife.	Natural condition	Material availability will be limited and Diavik prefers to use material available at the site, without disturbing new areas. It is likely that the shoreline of any reclaimed pond will differ from a natural pond, but it may be possible to identify and recreate some elements of interest to communities.	In consultation with communities, conduct further research and advance the plan for the PKC closure concept approved by the WLWB in May 2014.
6.16	Processed Kimberlite Containment Interim Report, 24-28 October 2013, pg. 6	Provide sufficient travel-ways for caribou and muskox over the dam through re-sloping and topping with smaller material	This approach would create safe access for wildlife, as it is assumed that wildlife will try to use this area after closure.	Safety Respect Stewardship	The current closure plan does not include re-shaping of the PKC dams. Any proposed changes would need to be evaluated for possible risks and discussed with communities. The footprint of the PKC extends close to the shoreline of Lac de Gras which could make it very difficult to reduce the slope of the dam in some key areas. Technical considerations also need to be taken into account; the dam walls still need to safely contain PK material that would remain after closure.	In consultation with communities, conduct further research and advance the plan for the PKC closure concept approved by the WLWB in May 2014.
6.17	Processed Kimberlite Containment Interim Report, 24-28 October 2013, pg. 6	Recognizing that caribou may return, provide areas of soft materials that are good for caribou feet so that they may pass over the reclaimed site	TK holders care about the comfort of animals and want to avoid creating stress for them. This approach would create safe access for wildlife, as it is assumed that wildlife will try to use this area after closure.	Safety Respect Stewardship	The current closure plan does not include cover materials that would provide access over the PKC dams. Any proposed changes would need to be evaluated for possible risks and discussed with communities.	In consultation with communities, conduct further research and advance the plan for the PKC closure concept approved by the WLWB in May 2014.

DDMI TK Panel Recommendations and Response Tracking - Processed Kimberlite Containment (PKC) Area						
NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
6.18	Processed Kimberlite Containment Interim Report, 24-28 October 2013, pg. 6	Leave some areas steep to encourage snow accumulation for wolverine and other denning wildlife (e.g. wolf, bear, fox, ground squirrel, etc.)	This approach would create safe access for wildlife, as it is assumed that wildlife will try to use this area after closure.	Safety Respect Stewardship	This would be achieved with the current closure plan.	N/A
6.19	Processed Kimberlite Containment Interim Report, 24-28 October 2013, pg. 6	Open up sections of the dam to recreate natural water flow	The desire of Panel members is to recreate pre-mine conditions. The limitations of water movement after closure were discussed in relation to elevation changes in this area; historic water flow patterns between Lac de Gras and the PKC area would be incredibly difficult to achieve.	Natural condition	The footprint of the PKC extends close to the shoreline of Lac de Gras which would result in a very short pathway for water to travel and heal before entering Lac de Gras. This conflicts with previous guidance to route water overland for as long as possible, and DDMI's preference is the latter. Technical considerations also need to be taken into account; the dam walls still need to safely contain PK material that would remain after closure.	N/A
6.20	Processed Kimberlite Containment Interim Report, 24-28 October 2013, pg. 6	The TK Panel requests that DDMI starts to remove any new slime from site, effective immediately	The Panel felt it important to stop adding to the volume of slimes that has already accumulated on site.	Stewardship	DDMI is unable to immediately start removing slimes from site, as there is no alternative storage options available or permitted, nor is there an acceptable method of transport available.	N/A
6.21	Processed Kimberlite Containment Interim Report, 24-28 October 2013, pg. 6	The TK Panel requests that DDMI provide an overview of the sixteen closure options that have been considered and the preferred five options identified (including costs). Further, the TK Panel requests that DDMI provide an overview and cost estimate to remove the slime from the mine site.	The options, reasons and costs were important for the TK/IQ Panel to understand in consideration of their own assessment.	Reciprocity	The options were reviewed with Panel members, though cost information was not available at the time the information was presented.	Diavik provided the Panel with the additional information requested.
6.22	Processed Kimberlite Containment Interim Report, 24-28 October 2013, pg. 6	The TK Panel recommends that DDMI explore ways of treating and removing slurry/slime with other diamond mines in the area to make it feasible	The assumption here is that costs will be reduced by working together.	Stewardship	Should such measures be necessary in the future, DDMI would be willing to explore such options in cooperation with other mines.	N/A
7.7	Re-vegetation Report, TK Panel Session #7, 14-18 August 2014	Create barriers and other means between the rock pile and PKC to discourage animals from going into the PKC area	Diavik provided feedback to the Panel at the start of Session 7 that a number of their recommendations from Session 6 (PKC) would not be possible, so Panel members had to re-evaluate their preferred approach to managing this area after closure. Participants realized that more discussion is required to develop alternate recommendations for the PKC. However, Panel members also noted that it is important to consider having a barrier between the rock pile and PKC that would prevent or deter animals from going into the PKC area. Keeping a steep slope on the side of the rock pile that is beside the PKC was recommended by the Panel.	Stewardship	The Panel's preference for design that prevents or deters caribou from travelling from the (north country) rock pile to the PKC is supported. The design approach to achieve this will need to be considered, as maximum slopes required for cover placement may not be sufficient in themselves to act as a barrier to movement.	DDMI to consider design features that support this recommendation during the next major update to the ICRP (2016).

DDMI TK Panel Recommendations and Response Tracking - Processed Kimberlite Containment (PKC) Area						
NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
8.11	Reefs & Monitoring Water Report, TK Panel Session #8, 2-4 December 2015	Monitor and filter two streams from the east and west sides of the PKC by Mother Nature through mosses, bogs; moss should be placed throughout the channel. In the short term, install an industrial filtering system. Monitor this water quality.	Another key concern for communities is the water quality of the PKC. Natural methods to filter water (e.g. moss) and planning for water to follow a long pathway to Lac de Gras are the Panel members preferred, long-term water treatment approaches. Recognizing that the development of moss may take time, it would be prudent to consider using an industrial filtering system to treat water flowing from the PKC once the mine closes and until such time as a natural filtering system has established. Water flowing from the PKC should be monitored scientifically for water quality.	Stewardship Nature is self healing Natural condition	Diavik currently monitors water quality in the PKC and this practice would be incorporated into a post-closure monitoring program. Routing options for water leaving the PKC after closure will be assessed, and DDMI agrees with the Panel that the distance it flows before entering Lac de Gras will be an important consideration. However, options may be limited in some areas, particularly on the west side. Should site-specific treatment of PKC water be required, relevant options (both industrial and natural) to achieve the required performance would be evaluated.	Outline post-closure monitoring plans for the mine site, including those specific to the PKC, and communicate the location and distance of drainage channels from the PKC.
9.8	Focus on Caribou, TK Panel Session #9, 13-16 May 2016	Place a circle of boulders around the PKC pond, in an area that is stable enough to support the weight and where they won't sink into the slimes, and around the shore of the North Inlet (refer to map).	Panel members prefer to find a way to deter caribou and other wildlife from accessing the PKC pond after closure. Panel members would prefer that the PKC pond not become a drinking water source for animals. Additionally, there is a risk of animals becoming trapped in the water, or stuck in the unstable slimes material at the edge of the pond. Man-made fences can sometimes injure wildlife or be used in predation, and require maintenance, so the preference is to use a natural way of deterring animals from accessing the pond.	Stewardship Natural condition Respect Safety	Diavik is still evaluating options for closing the PKC area. The current plan includes a pond in the centre of the PKC post-closure, but other options that could omit the need for a pond are being assessed in accordance with the recommendations received from past TK Panel sessions. The TK Panel's recommendation for the use of boulders around the pond has been noted for consideration, should the preferred closure plan result in the need for a pond in the PKC. Diavik is committed to arranging a future TK Panel session to re-visit the PKC closure plans, once further information on closure options have been further evaluated.	Update the TK Panel once Diavik has advanced closure research and evaluated additional closure options for the PKC area.
11.1	Options for Processed Kimberlite, TK Panel Session #11, 10-14 May 2018	If the PK goes to the mine area, the TK Panel recommends that all of the PKC slimes also be put into the pits. There is interest in moving as much of the slimes as possible from the PKC into the mine area and away from the surface where wildlife might gain access.	Panel members weighed the options of disposing PK into the PKC versus the pits/underground, considering the potential effects on wildlife, fish and the environment. As discussed during previous sessions, Diavik reminded the Panelists that a concern about the PKC are the slimes that form a consistency like toothpaste and can be harmful to wildlife or people that may get stuck in it owing to its physical properties.	Stewardship Safety	If Diavik receives approval to deposit PK in mine workings then Diavik will proceed to evaluate the feasibility/practicality of also moving EFPK ("slimes") to the mine workings including anticipated benefits to closure of the PKC facility.	Update the TK Panel with the results/recommendations from the studies once complete
11.2	Options for Processed Kimberlite, TK Panel Session #11, 10-14 May 2018	If Diavik moves ahead with putting PKC slimes into the mine areas, the Panel requests to review any changes to the PKC closure plan. For example, if it is not possible to move all of the slimes in the PKC to the mine area and some of the slimes remain in the PKC, the TK Panel may recommend that the PKC is topped with large boulders to discourage wildlife and people from entering.	Panel members weighed the options of disposing PK into the PKC versus the pits/underground, considering the potential effects on wildlife, fish and the environment. As discussed during previous sessions, Diavik reminded the Panelists that a concern about the PKC are the slimes that form a consistency like toothpaste and can be harmful to wildlife or people that may get stuck in it owing to its physical properties.	Stewardship Safety	If Diavik receives approval to deposit PK in mine workings then Diavik will proceed to evaluate the feasibility/practicality of also moving EFPK ("slimes") to the mine workings including anticipated benefits to closure of the PKC facility.	Update the TK Panel with the results/recommendations from the studies once complete
11.3	Options for Processed Kimberlite, TK Panel Session #11, 10-14 May 2018	The beach materials and rough kimberlite should stay in the PKC area (i.e., anything that can support a rock cover).	Panel members weighed the options of disposing PK into the PKC versus the pits/underground, considering the potential effects on wildlife, fish and the environment.	Stewardship	Diavik agrees	Diavik will plan to leave the beach materials and rough kimberlite in the PKC area (i.e., anything that can support a rock cover).

DDMI TK Panel Recommendations and Response Tracking - Open Pits						
NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
<i>Assigned by DDMI unless otherwise indicated in report</i>	<i>Be as specific as you think is appropriate; for example a section or page of the document, a recommendation #, general comment, etc.</i>	<i>Recommendations should be as specific as possible and explain an action that you believe is necessary; supporting information or rationale should be explained in the "context" column.</i>	<i>Context should contain all the information needed to understand the rationale for the accompanying recommendation.</i>	<i>Distinct values/concepts that are contained in Traditional Knowledge and can help to guide decision process</i>	<i>Responses should be as specific as possible, relating the issues raised in the "recommendation".</i>	<i>Actions should be as specific as possible, relating the issues raised in the "recommendation"; where possible, a timeframe may be included.</i>
8.9	Reefs & Monitoring Water Report, TK Panel Session #8, 2-4 December 2015	Do not breach dikes until the TK Panel is satisfied with the water quality through visual inspection and reviewing results from scientific analysis.	Panel members have repeatedly expressed the importance of 'seeing with their own eyes'. It is important to continue to involve Panel members in key decisions during the closure phase of the mine. One of the most important phases to supporting this process will be prior to breaching the dikes. If Panel members are satisfied with what they see and learn, they can support reconnecting the dike areas to Lac de Gras.	Stewardship Experiential learning Consensus Respect	Continued engagement of the TK Panel through site visits during closure is Diavik's preferred approach to sharing plans and progress, and continuing to build the Panel's knowledge and expertise of closure activities.	Continue to engage the TK Panel through closure.
8.20	Reefs & Monitoring Water Report, TK Panel Session #8, 2-4 December 2015	Leave the land between the pits and the dikes as it is for natural regrowth when flooding.	Much of the natural lake beds that are exposed inside the dike have been undisturbed for many years and have had substantial growth of terrestrial (land) plants. Panel members felt that these plants should be left in place. While they will likely die once they are under water, they will help to establish other water plants and provide food for bugs that live in the water.	Nature is self-healing Natural condition	The plant growth that has occurred in these areas is something that was not anticipated during the environmental assessment. Diavik is in agreement with the Panel on their recommended approach, but recognizes that other stakeholders, such as DFO, will be interested in considering the best option for these areas at closure.	Engage stakeholders to determine the preferred approach for revegetated areas inside the dikes prior to filling the open pits with water.
8.21	Reefs & Monitoring Water Report, TK Panel Session #8, 2-4 December 2015	Leave dikes as they are (i.e. do not modify the slope or current construction).	Panel members had much discussion over the dikes. In the end, many felt that the dikes will act as islands and offer protection from wind and waves inside (good for small and resting fish). The outside of the dikes would be perfect for bigger fish and other fish to swim along, and many Panel members stated that this is where they would set nets.	Stewardship Social	This recommendation aligns with Diavik's current closure plans. The only changes to the dikes would be the areas that are breached to reconnect the pits back to Lac de Gras.	N/A
8.22	Reefs & Monitoring Water Report, TK Panel Session #8, 2-4 December 2015	Vary depths of built reefs.	Keeping some parts of the reef deeper and some shallow allows for current to run through the area. Keeping the reefs under water will allow the water to freeze and the ice to grow really thick for safe travel. Building islands that extend out of the water was considered by the Panel at one point, but they ultimately preferred keeping the reefs under water, given that the dikes will become islands once they are breached.	Stewardship Social	This recommendation aligns with Diavik's current closure plans.	N/A
8.23	Reefs & Monitoring Water Report, TK Panel Session #8, 2-4 December 2015	Don't build, or minimize building reefs on previous lake bottom areas inside the dike area (i.e. protect undisturbed and naturally vegetated areas).	Similar to the feedback received during the revegetation session (#7), Panel members were interested in preserving areas inside the dike that had not been disturbed by mining activities. Reef construction should be focussed on areas within the dike where disturbance has already occurred.	Stewardship Natural condition Nature is self healing	This recommendation aligns with Diavik's current closure plans.	N/A

DDMI TK Panel Recommendations and Response Tracking - Open Pits						
NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
8.24	Reefs & Monitoring Water Report, TK Panel Session #8, 2-4 December 2015	Ensure good fish habitat for rearing, feeding and resting on reefs inside dike.	A combination of sand and gravel are the preferred materials to use for building reefs and new areas of lake bed, as this is what was there in the beginning (i.e. before mining). Fish that are just born like shallow areas with gravel and a bit of sand or till (original lake bottom sediments). Little fish don't like too much sand, though, and minnows will often die in these types of areas. There was a lot of debate about what type of habitat to develop inside the dikes, but Panel members ultimately felt that there was enough good spawning habitat elsewhere in Lac de Gras, so the focus for this area should be shelter for feeding and resting.	Recording knowledge Stewardship Natural condition Experiential learning	This recommendation aligns with Diavik's current closure plans.	N/A
8.25	Reefs & Monitoring Water Report, TK Panel Session #8, 2-4 December 2015	Stock water in open pits with bugs to improve water quality.	Many Panel members identified that bugs in the water and on the lake bottom are beneficial to fish and the environment. Their continued presence is also an indicator of good water quality. Adding bugs to areas that were previously disturbed could help to reclaim those areas.	Recording knowledge Stewardship Natural condition Experiential learning	Diavik is interested in this idea and plans to explore the feasibility of incorporating this method into closure plans.??	Evaluate feasibility of aiding benthic invertebrate colonization.
8.26	Reefs & Monitoring Water Report, TK Panel Session #8, 2-4 December 2015	Provide opportunity for the TK Panel to view the present shoreline when snow-free to consider further recommendations (in spring).	Panel members have repeatedly expressed the importance of 'seeing with their own eyes'. This Panel session was held in December in Yellowknife, so many members were basing their discussions on memory and hadn't closely looked at the shoreline areas of the pits in the past. In order to confirm their preferences, Panel members would like to visit the shoreline areas within the dike when there is no snow on the ground.	Stewardship Experiential learning	A visit to these areas is planned for May 2016, during TK Panel Session 9.	Plan to visit the pit shorelines during the May 2016 TK Panel meeting at the Diavik site.
8.27	Reefs & Monitoring Water Report, TK Panel Session #8, 2-4 December 2015	Break-up the 1 km cliff on pit A418 with slopes (to make it safe for caribou).	There was a concern that a cliff feature at the edge of a lake could result in caribou or other animals being injured or killed, especially if it was used by predators as a hunting technique. Additionally, the length of the existing cliff would mean that caribou would have to swim up to 1 km to get out of the water. As such, it was felt that adding slopes at regular intervals would be helpful for animals to get in/out of the water safely.	Stewardship Experiential learning Sharing knowledge	Diavik plans to accommodate this request when finalizing closure designs for the A418 pit. A visit to this area is planned for May 2016, during TK Panel Session 9, and it would be helpful to have the TK Panel confirm that this recommendation still holds after seeing the area with their own eyes.	Plan to visit the pit shorelines during the May 2016 TK Panel meeting at the Diavik site and determine if the TK Panel reconfirms this recommendation.
8.28	Reefs & Monitoring Water Report, TK Panel Session #8, 2-4 December 2015	Leave current roads into the pits (e.g. A154).	Panel members found it acceptable to leave the ramps (that are currently used for vehicles to enter the pits) in place at closure, as they could provide safe access for wildlife into and out of the lake.	Stewardship	This recommendation aligns with Diavik's current closure plans.	N/A

DDMI TK Panel Recommendations and Response Tracking - Open Pits						
NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
9.25	Focus on Caribou, TK Panel Session #9, 13-16 May 2016	Given that the pits are going to be refilled with water, that Diavik is considering putting processed kimberlite and 'slimes' into the pits and underground shafts and concerns about tremors and seismic activity, the TK Panel requests a tour of the pits and underground shafts to see the 'receiving environment' with their own eyes.	As with many other aspects of the site, TK Panel members find it helpful to see things with their own eyes in order to better understand an area and the related closure considerations for that area.	Experiential Learning Stewardship	DDMI understands the Panel's interest in viewing the open pits and underground to better understand the closure objectives for this area. A visit underground is very time consuming with many safety considerations and special equipment; not all Panel members may be comfortable going underground. DDMI suggests that a future TK Panel session focus on the option to store PK underground and that a tour of the open pit and underground areas would be arranged for those who wish to view them, in conjunction with that session.	DDMI to arrange for an open pit and underground tour, for those Panel members that wish to visit these areas, during a future Panel session.

**DDMI TK Panel Recommendations and Response Tracking - North Inlet**

NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/ CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
<i>Assigned by DDMI unless otherwise indicated in report</i>	<i>Be as specific as you think is appropriate; for example a section or page of the document, a recommendation #, general comment, etc.</i>	<i>Recommendations should be as specific as possible and explain an action that you believe is necessary; supporting information or rationale should be explained in the "context" column.</i>	<i>Context should contain all the information needed to understand the rationale for the accompanying recommendation.</i>	<i>Distinct values/concepts that are contained in Traditional Knowledge and can help to guide decision process</i>	<i>Responses should be as specific as possible, relating the issues raised in the "recommendation".</i>	<i>Actions should be as specific as possible, relating the issues raised in the "recommendation"; where possible, a timeframe may be included.</i>
7.14	Re-vegetation Report, TK Panel Session #7, 14-18 August 2014	Relating to re-vegetation, the North Inlet requires further discussion in terms of it being a no go zone, replanting zone or encouraging zone for wildlife.	The men and women had separate break out sessions to develop their ideas on how best to manage various areas of the mine after closure. Many of their ideas were similar, but the suggestions for the North Inlet differed greatly. Panel members recognized that more information is needed from Diavik relating to the water quality and closure plan for the North Inlet pond, before a decision can be made on vegetation and wildlife access.	Stewardship Reciprocity	Diavik is grateful for the maps developed at this session and views these as a useful tool for discussions with community members, community organizations, regulators and the TK Panel. Further information relating to the North Inlet water quality and closure plan will be planned for a future TK Panel session.	DDMI to use these maps as a basis for community engagement in relation to re-vegetation and wildlife use around the mine site at closure. DDMI to plan a TK Panel session for the North Inlet once all relevant information is available.
9.24	Focus on Caribou, TK Panel Session #9, 13-16 May 2016	Do not reconnect the North Inlet, open pits and PKC area with the lake/land; keep dams and dikes intact unless the water and sediments in those areas is proven to be clean and the same as Lac de Gras.	The Panel members would prefer that areas with the potential for contaminating Lac de Gras waters or fish (e.g. North Inlet) remain separate from the rest of the lake. Similarly, the dam around the PKC should remain intact unless the area would not pose a risk of contaminating the land or animals surrounding it. In order for the Panel to recommend or support plans to reconnect these areas back to Lac de Gras or East Island, Diavik would need to prove that the water, lake bottom and closure surface is clean and safe.	Stewardship Safety Natural condition	Diavik understands the Panel's concerns. Currently-approved closure plans would see the open pit/ underground areas and the North Inlet reconnected to Lac de Gras. Diavik has conducted several studies to determine if there are risks (potential for contamination) to the environment, should they be reconnected to LDG. Current plans also provide for multiple years of monitoring prior to possibly reconnecting these areas. Closure plans for the PKC include breaches in the dam in certain areas. It is Diavik's preference from a liability perspective to not retain regulated containment structures on the site.	Update the TK Panel as more information on these areas becomes available and a preferred closure plan is identified.

DDMI TK Panel Recommendations and Response Tracking - Water and Fish						
NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
Assigned by DDMI unless otherwise indicated in report	Be as specific as you think is appropriate; for example a section or page of the document, a recommendation #, general comment, etc.	Recommendations should be as specific as possible and explain an action that you believe is necessary; supporting information or rationale should be explained in the "context" column.	Context should contain all the information needed to understand the rationale for the accompanying recommendation.	Distinct values/concepts that are contained in Traditional Knowledge and can help to guide decision process	Responses should be as specific as possible, relating the issues raised in the "recommendation".	Actions should be as specific as possible, relating the issues raised in the "recommendation"; where possible, a timeframe may be included.
8.3	Reefs & Monitoring Water Report, TK Panel Session #8, 2-4 December 2015	In future programs, document why certain fish are rejected by Elders.	It was noted that one of the participants in the 2015 AEMP TK Study rejected two fish for processing, but the reasons why were not well documented. It would be helpful to capture these reasons in future studies.	Experiential learning Sharing knowledge	Diavik agrees that the reasons why fish are selected or rejected should both be documented.	Communicate and incorporate this approach for the 2018 AEMP TK Study.
8.4	Reefs & Monitoring Water Report, TK Panel Session #8, 2-4 December 2015	Water testing should be done by tasting fresh water and by boiling the water, letting it set overnight and drinking it the following day (observe scum and clarity).	Panel members recognized that not all people may drink tea, and that it would be better to use plain water to taste the lake water quality. In this way, the water is natural and any impurities would be easier to identify. However, the benefit of also boiling the water allows people to see if anything with the water changes after being heated, e.g. has a layer of scum, or materials settle out. It was agreed that people could make tea with the lake water on their own, if that was important to them.	Experiential learning Sharing knowledge	Diavik supports the water quality testing method that is preferred by TK holders. Any change to methods used should be communicated and documented during the planning phase of the 2018 AEMP TK Study.	Communicate and incorporate this approach for the 2018 AEMP TK Study.
8.5	Reefs & Monitoring Water Report, TK Panel Session #8, 2-4 December 2015	Set fish nets on both sides of the island (north and south).	Panel members felt that it is important to capture fish on both sides of East Island and closer to the mine itself. They would like to plan ahead for this for the next AEMP TK Study in 2018.	Experiential learning Sharing knowledge	Nets can be set in a variety of locations, and Diavik supports the idea of determining where best to set nets during the planning phase of the 2018 AEMP TK Study. However, weather conditions may limit the ability to access certain areas as safety rules for site restrict boat travel if winds exceed 15 knots.	Communicate and incorporate this approach for the 2018 AEMP TK Study.
8.6	Reefs & Monitoring Water Report, TK Panel Session #8, 2-4 December 2015	Ensure two Elders and two youth from each group attend future camps and meetings.	Panel members expressed that having young people participate in the AEMP TK Study, meetings and monitoring is critical for effective monitoring in the future. Having two young people from each community present increases their comfort level, as many are shy, and helps to make sure that the Elders are properly cared for. Members recognized that they could help support this process by talking with their organizations and encouraging them to find youth to attend.	Respect Experiential learning Intergenerational Sharing knowledge Stewardship Traditional laws	It would be very beneficial to have TK Panel members assist in identifying and recruiting youth to participate in TK programs. The TK camp footprint is small and space is limited to what can be supported with existing beds/tents and cooking facilities. Most community organizations can send 4 people to the camp and this is usually 2 Elders, 1 youth and 1 interpreter. Should an interpreter not be required, Diavik would consider having 2 youth from the community attend.	Evaluate camp accommodations and participant needs in advance of the 2018 AEMP TK Study and advise community organizations and the TK Panel on options for attendees.

DDMI TK Panel Recommendations and Response Tracking - Water and Fish						
NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
8.7	Reefs & Monitoring Water Report, TK Panel Session #8, 2-4 December 2015	Sample fish and water from the Narrows (In both LdG and LdS).	Concerns over future development of the Jay Pipe in Lac du Sauvage was a driver for Panel members to recommend sampling water and fish from the area around the Narrows (between LDS and LDG) as part of the AEMP TK Study.	Stewardship	The current area identified for fishing in LDG includes the area of the lake below the Narrows. For safety reasons, Diavik would like to avoid taking boats up the Narrows. Any concerns or interest in sampling LDS in relation to the Jay Pipe should be directed to Ekati.	N/A
8.8	Reefs & Monitoring Water Report, TK Panel Session #8, 2-4 December 2015	Consider additional water sampling locations from different areas.	At closure, or with future development, community members may want to add water sample locations to the AEMP TK program.	Stewardship	Water samples can be taken in a variety of locations, and Diavik supports the idea of determining where best to obtain samples during the planning phase of the 2018 AEMP TK Study. However, weather conditions may limit the ability to access certain areas as safety rules for site restrict boat travel if winds exceed 15 knots.	Communicate and incorporate this approach for the 2018 AEMP TK Study.
8.10	Reefs & Monitoring Water Report, TK Panel Session #8, 2-4 December 2015	Focus water quality monitoring on the NCRP.	The NCRP has been identified as one of the main concerns of Panel members who feel that climate change may affect its integrity and release contaminated water into the environment. As such, Panel members want to make sure that water from the pile is monitored for quality.		Many stakeholders are interested in the performance and integrity of the rock pile, as well as the quality of water seeping from the pile. As such, long-term water monitoring plans would be incorporated into the development of the post-closure monitoring program.	Outline post-closure monitoring plans for the mine site, most notably those specific to the water quality from the NCRP.
8.12	Reefs & Monitoring Water Report, TK Panel Session #8, 2-4 December 2015	Monitor fish spawning areas closely, especially in the SE part of island (i.e. area just south of the pits).	Panel members are concerned about fish spawning in potentially contaminated areas, so they want to know if fish are using the areas close to the mine after closure.	Stewardship	Community members could monitor spawning areas at a variety of locations in LDG, and Diavik supports the idea of determining where best to monitor during the planning phase of post-closure TK studies.	Communicate and incorporate this approach for post-closure TK studies.
8.13	Reefs & Monitoring Water Report, TK Panel Session #8, 2-4 December 2015	Monitor and test water in pits and around East Island regularly.	Panel members were concerned with pit water quality once the pits were refilled with water because of potential contaminants. It is recommended to sample the water frequently and watch for wildlife using the water (drinking, swimming). If wildlife avoid water, there could be a concern about the water quality. Similarly, other areas around the mine site should also be monitored for water quality where water can run off into Lac de Gras.	Stewardship	Diavik currently monitors water quality around East Island and this practice would be incorporated into a post-closure monitoring program, along with open pit water quality. Incorporating a TK perspective of observing wildlife using the water is supported as part of a post-closure monitoring program.	Outline post-closure monitoring plans for the mine site, including various water quality monitoring methods.

DDMI TK Panel Recommendations and Response Tracking - Water and Fish						
NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
8.14	Reefs & Monitoring Water Report, TK Panel Session #8, 2-4 December 2015	Regularly stock on-island pond water with bugs to improve water quality.	Many Panel members identified that bugs in the water and on the bottom of lakes are beneficial to fish and the environment. Their continued presence is also an indicator of good water quality. Adding bugs to areas that were previously disturbed could help to reclaim those areas.	Recording knowledge Stewardship Natural condition Experiential learning	Diavik is interested in this idea and plans to explore the feasibility of incorporating this method into closure plans.??	Evaluate feasibility of aiding benthic invertebrate colonization.
8.15	Reefs & Monitoring Water Report, TK Panel Session #8, 2-4 December 2015	Test water scientifically and not by tasting.	Panel members are uncomfortable with the idea of tasting water, as a way to test water quality, for water that is on the mine site. Panel members noted that scientific sampling is important for water testing, as it tests for things that cannot be seen or tasted. They also noted that visual inspections of the water (in the same areas that science samples would be taken) would be important for community members after closure.	Stewardship Safety	Diavik currently monitors water quality around East Island and this practice would be incorporated into a post-closure monitoring program. Incorporating a TK perspective of visual observations of the water is supported as part of a post-closure monitoring program. It is Diavik's hope that community members will be the ones taking scientific samples and observing the water themselves, at the same time.	Outline post-closure monitoring plans for the mine site, including various water quality monitoring methods.
8.16	Reefs & Monitoring Water Report, TK Panel Session #8, 2-4 December 2015	Regularly measure heavy metals all around island.	Panel members were concerned with water quality around the island, largely in respect to animals consuming it and water from the island entering the lake. Metals can be a concern because of equipment and infrastructure that were used for the mine.	Stewardship	Diavik currently monitors metal concentrations in water quality around East Island and this practice would be incorporated into a post-closure monitoring program.	Outline post-closure monitoring plans for the mine site, including various water quality monitoring methods.
8.17	Reefs & Monitoring Water Report, TK Panel Session #8, 2-4 December 2015	Monitor water in late May and early June as these are critical times (i.e. melt).	Panel members know from experience that spring thaw produces the greatest amount of water that would runoff the island and into the lake over a short period of time. The volume can also pick up a lot of dirt and material from the ground and transport it to the lake. Therefore it is important to monitor water quality during this time, in addition to regular sampling.	Stewardship	Diavik currently monitors water quality around East Island, including during freshet, and this practice would be incorporated into a post-closure monitoring program. Incorporating a TK perspective of visual observations of the water is also supported during this time of year. It is Diavik's hope that community members will be the ones taking scientific samples and observing the water themselves.	Outline post-closure monitoring plans for the mine site, including various water quality monitoring methods and timing/frequency of samples.
8.18	Reefs & Monitoring Water Report, TK Panel Session #8, 2-4 December 2015	Regularly measure water quality in all bays, drainage and run-off.	Panel members know from experience that water runs off the island and into the lake, taking many materials from the land along with it. Therefore it is important to monitor water quality in runoff and in areas that receive the runoff.	Stewardship	Diavik currently monitors water quality around East Island and in Lac de Gras, and this practice would be incorporated into a post-closure monitoring program.	Outline post-closure monitoring plans for the mine site, including various water quality monitoring methods.

**DDMI TK Panel Recommendations and Response Tracking - Water and Fish**

NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
8.19	Reefs & Monitoring Water Report, TK Panel Session #8, 2-4 December 2015	Annually check for algae growth around shorelines as too much can be an indicator that there is less oxygen for the fish.	Panel members have experience with lakes in their home regions that have changed over the years. Many noted how algae and moss can be helpful in cleaning water, but too much build up of algae, especially along shorelines, may be an indicator that the water is not of good quality for fish. This is something that community members can help to identify through visual inspections of shoreline areas near the mine.	Stewardship Experiential learning	Diavik currently monitors water quality around East Island and in Lac de Gras, and this practice would be incorporated into a post-closure monitoring program. Incorporating a TK perspective of visual observations for algae in the water is also supported. It is Diavik's hope that community members will be the ones taking scientific samples and observing the water themselves.	Outline post-closure monitoring plans for the mine site, including various water quality monitoring methods.
11.4	Options for Processed Kimberlite, TK Panel Session #11, 10-14 May 2018	TK holders know that fish generally go where there is food (nutrients) and oxygen so they are unlikely to go to the depth where PK would be.	When considering filling the underground and pit with PK, Diavik is interesting in learning from the Panel how far from the surface of the water the PK should be filled, if that option is preferred and approved. The Panel discussed at length what this level might be and did not come to a consensus (6 to 100m).	Stewardship Safety	Diavik agrees	N/A
11.5	Options for Processed Kimberlite, TK Panel Session #11, 10-14 May 2018	The Panel would like additional scientific research to see what the effects of PK (ingestion) might be on fish specific to Lac de Gras.	Panelists were particularly interested in knowing whether PK would affect fish and water, and expressed significant concern that fish might ingest PK or that PK may affect fish gills. Diavik presented results from the PK toxicology study that found that PK does not contaminate water or chemically harm fish.	Stewardship Safety	If Diavik receives approval to deposit processed kimberlite in mine workings then additional toxicological testing will be done on pore water collected from the deposited PK. There is no expectation that particulate PK will occur in the surface 40m where fish live.	Work with a toxicology laboratory to implement acute and chronic testing with standard fish species to further evaluate toxicity of PK pore water.
11.6	Options for Processed Kimberlite, TK Panel Session #11, 10-14 May 2018	If PK were to go in any mine area, the Panel requests an opportunity to learn more about the depth of water for fish habitat to cover PK (TK and western science).	When considering filling the underground and pit with PK, Diavik is interested in learning from the Panel how far from the surface of the water the PK should be filled, if that option is preferred and approved. The Panel discussed at length what this level might be and did not come to a consensus (6 to 100m).	Stewardship Safety	Diavik's water license amendment to permit PK to mine workings has been referred to Environmental Assessment. A decision by the review board is expected by the fall of 2019. If approved, Diavik has committed to a water cover greater than 50m.	Should the WLWB approve the water license amendment, at the design stage of the project, Diavik will complete additional modelling and design based on the specific water cover depth that will be available for fish habitat above the PK and report this back to the Panel.

DDMI TK Panel Recommendations and Response Tracking - Spiritual & Cultural Considerations						
NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/ CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
Assigned by DDMI unless otherwise indicated in report	Be as specific as you think is appropriate; for example a section or page of the document, a recommendation #, general comment, etc.	Recommendations should be as specific as possible and explain an action that you believe is necessary; supporting information or rationale should be explained in the "context" column.	Context should contain all the information needed to understand the rationale for the accompanying recommendation.	Distinct values/concepts that are contained in Traditional Knowledge and can help to guide decision process	Responses should be as specific as possible, relating the issues raised in the "recommendation".	Actions should be as specific as possible, relating the issues raised in the "recommendation"; where possible, a timeframe may be included.
2.4	Renewing Our Landscape, 7 Dec 2012, pg. 25	Renew relationship with the area after closure.	Spiritual ceremonies to invite the spirits to return to the mine site will be requiredresponsibilities require people to make amends to the spirits of the land for the damage created by the mine. It is important that current and future generations maintain their relationship with their homelands that surround the mine. Aboriginal harvesters will travel where the caribou go, and provided that the area is made safe and accessible for caribou, they will go there again. For this reason, Aboriginal people's connection with the land needs to be renewed and/or maintained after closure.	Traditional laws Stewardship	Diavik is open to recommendations on how best to approach this with each of the five Aboriginal Participation Agreement communities.	To be determined
4.3.1	Closure/Reclamation and Landscape History Interim Report, 23-25 October 2012, pg.6	Visit burial, archaeological and heritage resource areas close to the mine.	Provide comfort to community members that important sites have been preserved and that this historical connection still exists with the land in this area; important for youth to know the locations and stories behind these sites.	Intergenerational Stewardship Experiential learning	This type of activity could be incorporated into plans to renew the community's relationship with the land in this area after closure.	To be determined
4.3.2	Closure/Reclamation and Landscape History Interim Report, 23-25 October 2012, pg.6	Conduct a tobacco (or other) ceremony when the company is ready to leave the island.	Heal and reconcile the relationship with the land once all work is complete. The type of ceremony may be different for different cultures.	Symbolism Stewardship	This type of activity could be incorporated into plans to renew the community's relationship with the area after closure.	To be determined
9.6	Focus on Caribou, TK Panel Session #9, 13-16 May 2016	Recognize and honour the importance of ceremony in healing the relationship to caribou and contribute to healing events that are currently being planned by communities.	N/A	Traditional laws Stewardship Symbolism Safety Respect	Diavik works through Implementation Committees that have been established with each of their Participation Agreement communities to determine priority areas for financial contributions. We recommend speaking with your community organizations to identify this request for their consideration.	N/A
9.22	Focus on Caribou, TK Panel Session #9, 13-16 May 2016	Respect spiritual beliefs and the importance of healing ceremonies of Aboriginal communities, work with the TK Panel to plan spiritual gatherings on site now through 2030: one would be held early to help people on site understand Aboriginal ceremonial ways, possibly timed with a TK Panel session (e.g. 2017-8), second would be to start healing the environment (e.g. 2020), third would be designed to seek guidance on the finalization of closure plans (e.g. 2023) and fourth would be large and involved to formally invite the spirits to return to the Island before Diavik leaves (all communities invited, e.g. 2030).	Building in the practice of healing and/or guidance ceremonies is important and can be of interest to workers at the mine, as well as the TK Panel members. It would be helpful to start this practice sooner rather than later.	Traditional laws Stewardship Symbolism Safety Respect	Diavik is open to further recommendations from the Panel as to when and how this could occur. If the Panel is comfortable with helping to define this, such practices could be incorporated into the TK monitoring program that Diavik is interested in having the Panel develop.	TK Panel members to consider including spiritual practices and/or considerations as part of the proposed TK Monitoring Program for the Diavik mine.

DDMI TK Panel Recommendations and Response Tracking - Spiritual & Cultural Considerations						
NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/ CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
9.23	Focus on Caribou, TK Panel Session #9, 13-16 May 2016	Whenever the TK Panel and community members come on-site, allow opportunity, time, space, etc. for the TK Panel to practice 'feeding the land or water' by Panel members and others (visitors or workers) travel to/from the site and consider other ways to raise awareness (e.g. signage).	It is important to recognize and honor customs. While it is easy for the company to focus on their own safety, it is equally important for the Panel to have the opportunity to feed the land or water, as is traditionally done for safety on the land.	Traditional laws Stewardship Symbolism Safety Respect	Diavik recognizes the importance of this practice to community members and supports any practices that promote safety and wellbeing at the mine site. This practice will be incorporated into future TK Panel meetings, or other community visits to the site.	This opportunity will be provided to the Panel, or other community visitors to the site, upon their arrival.
10.24	Watching/Monitoring and the WRSA-SCRIP, Session #10, 14-18 September 2017	Research or monitoring methods that are offensive to elders (e.g. caribou collars) should lead to getting alternative method advice from elders. Diavik should check with the TK Panel as to whether any aspects of the current monitoring program is offensive and revise them accordingly.	The Panel focuses on closure planning and monitoring, but they are also interested in Diavik's operational monitoring and would like to learn more about monitoring programs, methods and results in order to determine if these are suitable and appropriate from a community perspective.	Respect Stewardship	Diavik can share details of each of the current (operational) monitoring programs with the Panel at a future session to determine if methods used are appropriate. This may also help to inform the Panel's recommendations relating to closure monitoring for wildlife.	Provide a presentation on Diavik's operational monitoring programs to the Panel at a future session.

DDMI TK Panel Recommendations and Response Tracking - Monitoring & General (including TK/IQ Panel Process)						
NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
<i>Assigned by DDMI unless otherwise indicated in report</i>	<i>Be as specific as you think is appropriate; for example a section or page of the document, a recommendation #, general comment, etc.</i>	<i>Recommendations should be as specific as possible and explain an action that you believe is necessary; supporting information or rationale should be explained in the "context" column.</i>	<i>Context should contain all the information needed to understand the rationale for the accompanying recommendation.</i>	<i>Distinct values/ concepts that are contained in Traditional Knowledge and can help to guide decision process</i>	<i>Responses should be as specific as possible, relating the issues raised in the "recommendation".</i>	<i>Actions should be as specific as possible, relating the issues raised in the "recommendation"; where possible, a timeframe may be included.</i>
1.20	A Way of Life, 25 October 2012, pg. 25	Youth should be involved with the TK/IQ Panel and included in discussions about closure.	Youth live in a changing and complex world and have skills that the Elders do not. They need to learn about their culture and history, as well as about the mines. They will be the future caretakers of the land and the ones speaking for their communities in the future, so they must be a part of the discussions and decisions.	Intergenerational Social Stewardship	Diavik sees value in having youth participate in TK/IQ Panel sessions, where possible.	Youth involvement was incorporated into the October 2013 Panel session, and also plans to include youth in future sessions.
2.1	Renewing Our Landscape, 7 December 2012, pg. 9; 19 July 2012 e-mail from EMAB	Arrange for a visit to the mine site to see some of the structures that are being discussed for closure, specifically the North Country (waste) Rock Pile. Preference is to stay at a camp on the land, rather than in mine site accommodations.	In order to provide effective and helpful advice, Panel participants need to see areas in person. A fundamental principle in TK/IQ is that "being knowledgeable" requires an experiential context of what is being discussed, as TK comes to the forefront of peoples minds when they are on the land that they are discussing. This helps to understand the area as it was traditionally and to comprehend the change and scale of the current landscape.	Recording knowledge Experiential learning	Diavik sees value in having TK/IQ Panel members visit the mine site. For safety reasons, visitors stay at the mine site accommodations.	In response to this request, a site visit and follow up meeting in Yellowknife was arranged for 20 & 21 August 2012. Diavik also began to hold TK/IQ Panel meetings at the mine site in October 2013, when the Panel began to be administered by Diavik.
4.1.3	Checking Nets, 23-25 October 2012, pg.19; Closure/Reclamation and Landscape History Interim Report, 23-25 October 2012, pg.8	Diavik to develop and maintain a tracking sheet for documenting progress on recommendations and action items and present progress to the panel at the beginning of sessions.	Desire for Panel members to see the results of their work and obtain a response from Diavik. Shared learning and acknowledging contributions of others is an important tradition. There is an opportunity to learn from their experience and any recommendations that are implemented. There may be a need to revisit recommendations that are either ineffective, or are carried out or interpreted incorrectly. It is also an opportunity to celebrate successes achieved by the Panel and Diavik.	Recording knowledge Respect Reciprocity	Diavik is committed to providing a response to all Panel recommendations. Diavik also requested that EMAB provide past Panel recommendations to DDMI for response.	This Excel spreadsheet is the proposed tracking system and was reviewed and supported by the TK/IQ Panel. Updates to this spreadsheet are done over time and communicated in person to Panel members, and shared with the public as necessary.
4.1.4	Checking Nets, 23-25 October 2012, pg.20	Women to have opportunities to participate in TK/IQ Panel – especially for discussions on caribou and vegetation.	Women have specific roles in Aboriginal communities and the knowledge they can contribute is different from that of men. There needs to be respect for the distinct knowledge of women, as Elder women have special gifts and understandings that are important for carrying out stewardship responsibilities.	Respect Recording knowledge	Recommendation is to the TK/IQ Panel or their community organizations. DDMI does not select Panel participants but could request community organizations to include women participants, as recommended by the Panel.	A request to add women participants for the August 2014 re-vegetation Panel session was sent to communities, as this had been suggested by the Panel in the past.

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NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
4.1.5	Checking Nets, 23-25 October 2012, pg.20	Extend length of Panel sessions to 4 days.	Three days is not enough to review documents, learn about the context of the topic(s) and share new knowledge. The fourth day is key to completing the review and verification necessary to respectfully document knowledge and develop a complete document that all parties are happy with.	Recording knowledge Consensus Respect	A longer meeting is supported, provided that it results in an approved set of transcripts and recommendations by the end of the session.	Starting with the October 2013 TK/IQ Panel session, each Panel meeting is planned to be 4 days at the mine site. Transcripts are to be produced and presented to Panel members daily to be verified on-site, where possible.
4.1.6	Checking Nets, 23-25 October 2012, pg.21	Include Aboriginal words or terms in reports as appropriate. Keep wording in reports simple and make summary notes available soon after a meeting.	Some Aboriginal languages include concepts that are very precise and reflect a more complete understanding than what can be translated. Language contains distinct concepts unique to TK so the spiritual premise of certain terms contained within the language can often get lost in translation. Plain language should be used so that all people can understand it, regardless of their language or reading skills. It is important for participants to review their words and make sure they were recorded and/or interpreted correctly while the words are still fresh in participant's minds.	Symbolism Recording knowledge	TK/IQ Panel members should work with their interpreters and the facilitators to ensure that important Aboriginal words or terms are captured within transcripts and/or reports. Diavik makes efforts to report the results of their programs in different ways, for different audiences.	TK Panel reports are to use basic or plain language and efforts will be made to continue to make transcripts available daily for review.
4.1.7	Checking Nets, 23-25 October 2012, pg.21	An Aboriginal facilitator would be of benefit to the TK/IQ Panel.	Panel meetings should be organized in a way that fits with the Aboriginal way of knowing. This leads to improved communication, interpretation and understanding of the value of participants messages.	Respect	Diavik sees value in having an Aboriginal facilitator involved in the TK/IQ Panel sessions, provided that this approach continues to be supported by Panel members.	Joanne Barnaby has been contracted to co-facilitate TK Panel sessions.
4.2.1	Working Together, 23-25 October 2012, pg.8	Develop a TK/IQ Panel manual that would be regularly revised to reflect the Panel's process, topics and lessons learned over time.	There are few models for this type of organization or work so it is important to document the Panel's mandate, protocols and procedures. This approach should be recorded in an effort to develop best practices and learn from challenges. Panel facilitators would be responsible for updating the document, for review and verification by Panel members.	Recording knowledge Consensus Respect	Diavik supports the development of, and on-going updates to a TK/IQ Panel Manual. Discussions relating to Panel priorities and schedule should also be included in such a document.	Update the "Working Together" manual to reflect the change in administration of the Panel from EMAB to Diavik.
5.6	Closure Reclamation & Landscape History Interim Report, 19-22 February 2013, pg.6	Identify opportunities for Aboriginal participation in closure activities.	The TK/IQ Panel identified landscaping, planting, design and experiments as ideal for Aboriginal participation. Training youth to assist with site activities at closure will be important.	Stewardship Respect Recording knowledge Intergenerational	Diavik expects that the majority of closure activities will be completed by Aboriginal people and companies, and plans to work with communities over the next few years to identify and realize such opportunities.	N/A
5.7	Closure Reclamation & Landscape History Interim Report, 19-22 February 2013, pg.6	Engage the TK/IQ Panel in preparations for Elder programs at the mine site.	Panel members see an opportunity for them to assist with defining discussion topics, seeking input on how to prepare Elders and make full use of the visit and how to respectfully document their observations. The Panel can also advise on proper methods for Elder care during such site visits.	Respect Recording knowledge Reciprocity	Diavik is currently re-evaluating its approach to community engagement with communities. There may also be an opportunity for the TK/IQ Panel to assist with this process.	N/A

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NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
5.8	Closure Reclamation & Landscape History Interim Report, 19-22 February 2013, pg.6	Ensure experts are available to TK/IQ Panel members as needed, based on discussion topics.	It is important for Panel members to have access to technical and/or scientific experts for the topics being discussed, so that they can learn as much information as possible and therefore make informed recommendations. Such an approach supports the cross-cultural learning style that the Panel follows and allows for quicker progress.	Reciprocity	Diavik views this approach as beneficial as well, and has supported the Panel with such expertise in the past.	Continue to work with the TK/IQ Panel facilitators to identify the required resources and expertise needed for each Panel session.
EMAB-1	Environmental Monitoring Advisory Board TK/IQ Panel Recommendations from February 2013, Letter from EMAB, 8 Oct 2013, pg.2	EMAB feels that Diavik is proceeding in the right direction in working towards answers to these and other questions but recommends that DDMI conduct on-site workshops or community consultations or a combination of both. When this work is completed then EMAB will review the results and if necessary we will convene the TK/IQ Panel in order to review the process, methodology, and results.	References DDMI questions posed by DDMI at the February TK/IQ Panel session relating to NCRP shape, reclamation of roads & laydowns, and revegetation.	N/A	October 2013 TK/IQ Panel session was at the mine site. Diavik consults with communities through Closure Working Groups and public meetings held within the communities. In accordance with a letter received on 7 August 2013, EMAB gave Diavik permission to administer the TK Panel.	N/A
7.13	Re-vegetation Report, TK Panel Session #7, 14-18 August 2014	Complete the TK literature review report so that it can be used as a guide in the vegetation program and closure plan, and be available to communities.	As previously suggested by the Panel, there is value in compiling the existing TK that has been captured by community or company research in the past. Much of this information was compiled prior to Session 7, but a report was not completed. The Panel would like to see a complete report.	Recording knowledge	Diavik supports the completion of the literature review report that was initiated for TK Panel Session 7.	Literature review of the TK of plants in the Lac de Gras region was completed in October 2014.
7.17	Re-vegetation Report, TK Panel Session #7, 14-18 August 2014	Have a women's only session in the field next summer to address vegetation and other issues of interest to them.	Some Panel members felt that there would be a benefit to holding a 'womens only' session in the future, as this may create a more acceptable space for sharing the knowledge that is specific to women.	Traditional laws Respect Recording knowledge	Diavik's preferred approach, that has also been supported by Panel members, is to focus on creating an opportunity for women to participate in the TK Panel sessions on a regular basis, rather than holding specific women only sessions for certain topics. There is important knowledge that women have to share on all topics.	Diavik to request a woman participant from each community organization to attend each TK Panel session.
7.18	Re-vegetation Report, TK Panel Session #7, 14-18 August 2014	Diavik must meet its commitments to support a minimum of two TK Panel sessions a year.	Panel members felt that momentum is necessary to keep the Panel engaged and not have to start from scratch every time they meet. Participants recognize the number of topics and discussions that should occur prior to closure, and that this will take time.	Respect Reciprocity	Diavik is committed to the TK Panel and supports meeting on a regular basis. However, the number of meetings per year is not seen to be as important as making sure that we have the right information available to share and that session topics are relevant to the most current closure considerations. For example, during 2015, many TK Panel members were involved in multiple meetings for the AEMP TK Study, making it difficult to arrange a TK Panel session during the summer.	Diavik to provide suggested meeting topics and times for the following year at the last session in the previous year (e.g. plan for 2016 is provided at end of 2015), for discussion by Panel members.

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NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
7.19	Re-vegetation Report, TK Panel Session #7, 14-18 August 2014	TK panel members need to verify TK recommendations with elders back home.	Panel members feel that the results of each session are important to be shared with Elders in their respective communities. While Diavik has a role to play in doing this as well, Panel members felt that they also have a responsibility to discuss each session outcome with respected Elders on a more informal basis, and incorporate any feedback they receive into future Panel sessions.	Traditional laws Respect Recording knowledge	Diavik encourages Panel members to informally share what they learned and recommended with their elders and organizations back home. Any feedback they receive can be shared with the Panel during the recommendations review in the next session.	N/A
7.20	Re-vegetation Report, TK Panel Session #7, 14-18 August 2014	Require one male and one female member from each community organization on the TK Panel (or formal alternates); where possible, members must know the LDG area (directed to Aboriginal governments).	Panel members recognize the different knowledge that males and females have, and that both types of knowledge must be recognized and incorporated into the TK Panel closure planning process. While there has been much success in keeping Panel members consistent over time (in an effort to build knowledge and familiarity with the mine and its closure plans), past participants have only been males. Incorporating females into the Panel will result in a change in Panel membership in the near future, but the value and depth of knowledge this change would bring is more important to Panel members than maintaining consistency of past membership.	Traditional laws Respect Recording knowledge	Diavik has incorporated this recommendation into the meeting notifications sent to the community organizations that arrange for their member participants. It is ultimately the community organization's decision of who to send, so we encourage TK Panel members to also relay their recommendation in person to their community's staff.	Diavik to include this request in future correspondence with community organizations that arrange meeting participants.
7.21	Re-vegetation Report, TK Panel Session #7, 14-18 August 2014	Formalize our recommendations to Aboriginal governments to have youth participate.	All participants recognize the important role that youth play as future custodians of the land. Because of this, it is important that they are included in the closure planning process now, so that they are educated, aware and able to contribute to decisions made that will impact future generations.	Intergenerational Social Stewardship	Diavik has incorporated this recommendation into the meeting notifications sent to the community organizations that arrange for their member participants. It is ultimately the community organization's decision of who to send, so we encourage TK Panel members to also relay their recommendation in person to their community's staff.	Diavik to include this request in future correspondence with community organizations that arrange meeting participants.
7.22	Re-vegetation Report, TK Panel Session #7, 14-18 August 2014	Celebrate our TK Panel as a model for other mining companies.	Panel members are happy with the work they are doing. They recognize how unique the Panel is, and the opportunity it provides to contribute to future planning. Seeing the importance of learning from what works, it is felt that the process and results the Panel has developed should be shared with others.	Stewardship Respect Recording knowledge Intergenerational Reciprocity	The results of the Panel's sessions are shared widely within the NWT. Panel session reports are provided as part of DDMI's annual closure updates to the WLWB, and this is shared more broadly with all reviewers on the WLWB distribution list. The process and results that you have produced to date are being noticed and celebrated.	N/A

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NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
8.29	Reefs & Monitoring Water Report, TK Panel Session #8, 2-4 December 2015	Explore long term monitoring options including how to coordinate and administer an ongoing post-2030 program that continues to integrate TK and science and involves both Elders and youth trained in science. (Consider funding, and if some of the bond can be used) .	TK Panel members are very interested in continuing to monitor the land and water in the Lac de Gras area after the mine is closed. Panel members are interested in exploring options for doing such work and determining how best to organize and fund such an initiative. There is a strong interest from the Elders to make sure that the youth of today are the future monitors for this work, which requires early involvement as well as capacity building in scientific and TK environmental monitoring.	Stewardship Intergenerational	While communities may be interested in monitoring past 2030, Diavik needs to plan for ultimate closure and relinquish ownership of the property back to the government. Once this is complete, monitoring would no longer be conducted or organized by Diavik. As such, any long-term monitoring plans past 2030 would need to be funded and coordinated by other parties. DDMI suggests that this recommendation is better directed to community organizations and/or governments.	N/A
8.31	Reefs & Monitoring Water Report, TK Panel Session #8, 2-4 December 2015	Continue to provide the TK Panel with teaching and communication 'tools' (i.e. videos, books, photos), to share progress and findings on closure planning with communities.	Panel members felt that information and materials that they can have and use to communicate with other Elders and people in their home communities are helpful to show the progress and importance of the work they are doing and knowledge they are sharing. Items like the AEMP TK Study videos and copies of reports are good.	Respect Reciprocity Social	Diavik continues to provide the Panel and their associated community organizations with reports, videos, maps, pictures or other materials that assist in sharing the work and success of the Panel. Further guidance as to what is helpful and effective for Panel members to use in communicating with others would be appreciated.	N/A
8.32	Reefs & Monitoring Water Report, TK Panel Session #8, 2-4 December 2015	Plan for climate change hundreds of years into the future.	There is concern that climate change will affect performance of some mine infrastructure and inadvertently impact the environment, for example by release of contaminated water. As such, Panel members want to make sure that climate change scenarios are considered in closure design and planning work in order to protect the environment long into the future.	Stewardship Social	Accepted climate change scenarios have been incorporated in to the planning models that guide design and construction decisions for site infrastructure. This includes planning for long-term performance after closure.	N/A
8.33	Reefs & Monitoring Water Report, TK Panel Session #8, 2-4 December 2015	Re-seed land and use dirt and <i>safe</i> sewage to facilitate re-growth.	As discussed in Session 7 on Revegetation, Panel members are interested in re-seeding the land around the mine to help plants grow back, but it should only be northern species that are used. A change from Session 7 is that Panel members are open to the idea of using human sewage from the on-site treatment plant as fertilizer, provided that Diavik can demonstrate that it is safe to do so (for animal and human health).	Stewardship Social Safety	Treated sewage is currently stored on site, with plans to use it as a soil amendment to aid in reclamation activities. Diavik is working to determine if the treated sewage is considered safe from an animal and human health perspective.	Test the treated sewage to determine if it is safe to use as a soil amendment (fertilizer) and communicate results back to the Panel.

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NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
9.9	Focus on Caribou, TK Panel Session #9, 13-16 May 2016	Contribute to training community monitors in using both traditional knowledge and western science so that common approaches across communities are used and results can be pulled together from many places.	The Panel felt that it is important to support capacity building for community members to actively participate in the closure process, particularly closure monitoring. They recognize that strength in monitoring can be achieved when western science (WS) and TK are conducted together. There is also value to ensuring that the similar techniques and methods are used across industry and communities so that this information is comparable.	Stewardship Intergenerational Social	Diavik provides site-based training to new hires and contributes to formal training programs through the Mine Training Society and support for the Aurora College BEHR environmental monitor training program, as well as the College's Environmental Monitor Certification program. If it is necessary to revise or expand existing training programs to meet the needs of closure monitoring, Diavik suggests that this is best coordinated through these professional training institutes. DDMI also provides scholarship funding to community members through their PA's. Diavik suggests that the communities themselves are best suited to provide training in monitoring using Traditional Knowledge.	N/A
9.11	Focus on Caribou, TK Panel Session #9, 13-16 May 2016	Recognizing that Aboriginal communities are committed to their traditional responsibility to take care of the environment, participate with Diavik and other partners (e.g. Dominion Diamonds) to explore ideas and develop capacity to establish a Cumulative Effects Monitoring and Management Station (CEMMS) using the TK camp as a base that has program links to the GNWT Daring Lake Research Station.	The Panel viewed the TK camp as an ideal base for studying the Lac de Gras area after the mine was closed. The GNWT's Daring Lake Research Station is also in a good position to further support such research and the Panel saw value in coordinating efforts with the Government's programs at Daring Lake. In order to achieve this, the Panel identified the need for mines, government and other regulators to work together to determine how best to coordinate and implement a CEMMS (or similarly structured) program.	Stewardship Intergenerational Social	Diavik intends to continue its scientific monitoring programs through the closure phase. Diavik also encourages the Panel to develop a TK Monitoring Program for the Diavik site. While there are no formal plans for how or who would coordinate regional monitoring in the future, or where to base such monitoring initiatives, Diavik expects that any such regional program would build upon the existing site-specific programs to ensure that similar information is collected to evaluate trends over time.	Diavik to conduct site-specific WS and TK monitoring programs through the closure phase and work with communities, regulators and industry to determine a suitable regional approach for long-term, post-closure monitoring.
9.12	Focus on Caribou, TK Panel Session #9, 13-16 May 2016	In partnership with communities and the GNWT, begin planning a joint TK and WS monitoring program that would begin in 2023 to be ready for implementation in 2025 by building on and expanding the current Diavik monitoring program.	Panel members consider intergenerational plans and programs, recognizing that there is a need for long-term monitoring in the Lac de Gras region long after the mining companies are gone. Given that it can take time to coordinate these types of programs, the Panel sees value in starting these discussions now so that plans are in place for when the Diavik mine is closed.	Stewardship Intergenerational Social	Diavik intends to continue its scientific monitoring programs through the closure phase. Diavik also encourages the Panel to develop a TK Monitoring Program for the Diavik site. While there are no formal plans for how or who would coordinate regional monitoring in the future, Diavik expects that any such regional program would build upon the existing site-specific programs to ensure that similar information is collected to evaluate trends over time.	Diavik to conduct site-specific WS and TK monitoring programs through the closure phase and work with communities, regulators and industry to determine a suitable regional approach for long-term, post-closure monitoring.

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NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
9.13	Focus on Caribou, TK Panel Session #9, 13-16 May 2016	Offer monitor training to provide traditional land users with new skills and techniques to monitor from mine closure through to when Diavik completely leaves the site (expected to be 2030) and beyond for long term monitoring.	The Panel felt that it is important to support capacity building for community members to actively participate in the closure process, particularly closure monitoring. They recognize that strength in monitoring can be achieved when western science (WS) and TK are conducted together.	Stewardship Intergenerational Social	Diavik provides site-based training to new hires and contributes to formal training programs through the Mine Training Society and support for the Aurora College BEAHR environmental monitor training program, as well as the College's Environmental Monitor Certification program. If it is necessary to revise or expand existing training programs to meet the needs of closure monitoring, Diavik suggests that this is best coordinated through these professional training institutes. DDMI also provides scholarship funding to community members through their PA's.	N/A
9.15	Focus on Caribou, TK Panel Session #9, 13-16 May 2016	Design monitoring training with the objective of understanding what is happening in the eco-system with cumulative effects.	Communities are most concerned about cumulative impacts to the Lac de Gras region. For this reason, monitoring should focus on cumulative effects.	Stewardship Intergenerational Social	Existing scientific monitoring training programs focus on techniques that evaluate the state of the environment and contribute to understanding cumulative effects through the analysis of the data collected.	N/A
9.16	Focus on Caribou, TK Panel Session #9, 13-16 May 2016	Employ community monitor trainees and ensure they have a meaningful role in the design of various aspects of closure work, including the building of wildlife ramps; the reclamation of the PKC, the North Inlet and contaminated sites; and any re-vegetation work on site.	It is important to the Panel to have community members employed on site and participating in healing the land and ensuring a safe environment for future use by wildlife and humans.	Stewardship Intergenerational Social	Diavik has and will continue to focus on employing people from the PA communities at the mine site. This includes the closure work identified by the Panel. We also see value in incorporating community members in inspecting and evaluating reclamation work in relation to the objectives and plans for each area, whether this be the TK Panel or other community representatives and we are hopeful this will form a part of the site-specific TK monitoring plan.	Diavik to continue to focus on employing PA community members, particularly to assist with closure work.
9.17	Focus on Caribou, TK Panel Session #9, 13-16 May 2016	Employ and ensure opportunities for high level employment/career advancement of trained community monitors (graduates of the training program) funded by Diavik and/or others. In addition to community members, a minimum of one Elder and one youth from each community should participate in the training program.	It is important that community members have meaningful jobs at the mine, throughout the closure process.	Stewardship Intergenerational Social	Diavik has and will continue to focus on employing people from the PA communities at the mine site. This includes closure monitoring identified by the Panel. We also see value in incorporating community members in inspecting and evaluating reclamation work in relation to the objectives and plans for each area, whether this be the TK Panel or other community representatives and we are hopeful this will form a part of the site-specific TK monitoring plan.	Diavik to continue to focus on employing PA community members, particularly to assist with closure monitoring.
9.21	Focus on Caribou, TK Panel Session #9, 13-16 May 2016	Support the focus of long term monitoring goals for cumulative effects (CEMMS) on natural re-vegetation, return of caribou and other wildlife, and water quality in the Lac de Gras area.	The Panel is hopeful that Diavik recognizes the importance of contributing to long-term, regional monitoring that will continue after the mine is closed.	Stewardship Intergenerational Social	Diavik intends to continue its scientific monitoring programs through the closure phase. Diavik also encourages the Panel to develop a TK Monitoring Program for the Diavik site. While there are no formal plans for how or who would coordinate regional monitoring in the future, Diavik expects that any such regional program would build upon the existing site-specific programs to ensure that similar information is collected to evaluate trends over time.	Diavik to conduct site-specific WS and TK monitoring programs through the closure phase and work with communities, regulators and industry to determine a suitable regional approach for long-term, post-closure monitoring.

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NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
10.11	Watching/Monitoring and the WRSA-SCRIP, Session #10, 14-18 September 2017	Some start-up watching projects might look at: - what plants are growing on disturbed ground and why/why not; - presence of ground squirrels on the East Island; - health of the shorebirds on the water (as an indicators for health of water); - snow accumulation and natural revegetation around boulders atop the test pile; - watch and monitor dust impacts on water and plants as an important part of the food chain; - animal scat, this should be part of a TK Watching program; - look at possible impacts on plants, with special consideration for those used for medicine.	The TK Panel is interested in starting to identify the types of things that are of interest to elders and youth to monitor. They recognize that more time and discussion is needed to build on these ideas and confirm what and how to watch the area, but that it is but that it is important to start documenting what has been shared to date.	Stewardship Intergenerational Recording Knowledge	Diavik is interested in further discussions for TK/community-based monitoring programs that can support or enhance other (western) scientific monitoring programs that will be conducted at the site.	Plan for another TK Panel session to focus on closure and post- closure monitoring at the Diavik site.
10.12	Watching/Monitoring and the WRSA-SCRIP, Session #10, 14-18 September 2017	Pair every adult with a youth monitor. Scientists should also be involved. Consider the TK camp as a good model, bringing elders and youth together with scientists.	The TK Panel members see great value in mentoring youth and advocate for including youth in TK programs wherever possible. The TK Panel recognizes that people learn from one another and respect the different kinds of knowledge that each person contributes. They view this as a good model to carry forward for closure monitoring.	Stewardship Intergenerational Recording Knowledge Respect	Recognizing that there are still many details to work out in relation to closure planning and monitoring, Diavik is generally supportive of an approach that involves Elders, youth and scientists working together.	Plan for another TK Panel session to focus on closure and post- closure monitoring at the Diavik site.
10.13	Watching/Monitoring and the WRSA-SCRIP, Session #10, 14-18 September 2017	Ideally, watching would occur all year round. At a minimum, watching must occur in all seasons.	The land and animals behave differently depending on the season. There are important indicators to watch throughout the seasons and year to make sure that the land and animals are healthy. Panel members are interested in watching programs that would occur across all seasons.	Stewardship Intergenerational Recording Knowledge Seasonality	Recognizing that there are still many details to work out in relation to closure planning and monitoring, Diavik is generally supportive of this approach.	Plan for another TK Panel session to focus on closure and post- closure monitoring at the Diavik site.
10.14	Watching/Monitoring and the WRSA-SCRIP, Session #10, 14-18 September 2017	Watchers should be trained by trained monitors from existing guardianship programs (e.g. Ni Hat'ni Dene, Tlichio, Dehcho). From there, trained watchers will train new watchers through a pay-it-forward model.	Existing guardianship programs are celebrated as good models from which to learn. The next step will be to determine how best to apply their practices, resources, and support systems. Collaboration and sharing are keys to success.	Stewardship Intergenerational Recording Knowledge Respect	Diavik's understanding of existing Guardianship programs is that they are largely organized and operated by community organizations. It is important to continue discussing this model to determine what role Diavik and others may play in such an approach; e.g. funding agreement for Guardianship program, in-kind donations, program coordination, etc.	Plan for another TK Panel session to focus on closure and post- closure monitoring at the Diavik site.
10.15	Watching/Monitoring and the WRSA-SCRIP, Session #10, 14-18 September 2017	Be designed for long term watching/monitoring as impacts may take a long time to show up (i.e. a plant may look healthy now but in the future it may not be strong if dust or contaminated water affect it).	Community members understand that nature has great power to heal, but that this can take a long time. The TK Panel wants to be sure that there are plans in place for long term watching and monitoring so that they can be confident that closure was successful and the land is healthy again.	Stewardship Intergenerational Recording Knowledge	Recognizing that there are still many details to work out in relation to closure planning and monitoring, Diavik is generally supportive of this approach and is interested in continuing discussions with communities and regulators to determine a suitable approach for this type of work.	Plan for another TK Panel session to focus on closure and post- closure monitoring at the Diavik site.

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NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
10.16	Watching/Monitoring and the WRSA-SCRIP, Session #10, 14-18 September 2017	Watch and check everything (water, wildlife, birds, bugs, small mammals, plants, weather, etc.).	The TK Panel is interested in starting to identify the types of things that are of interest to elders and youth to monitor. They recognize that more time and discussion is needed to build on these ideas and confirm what and how to watch the area, but that it is but that it is important to start documenting what has been shared to date.	Stewardship Intergenerational Recording Knowledge	Diavik is interested in further discussions for TK monitoring programs that can support or enhance other (western) scientific monitoring programs that will be conducted at the site.	Plan for another TK Panel session to focus on closure and post- closure monitoring at the Diavik site.
10.17	Watching/Monitoring and the WRSA-SCRIP, Session #10, 14-18 September 2017	Ensure long-term, ongoing and significant funding.	Funding and resources are important to secure when planning for long-term watching programs. The Panel recognizes that more discussions are required to determine how best to secure and maintain funding for this type of work.	Stewardship Intergenerational Recording Knowledge	Recognizing that there are still many details to work out in relation to closure planning and monitoring, Diavik is generally supportive of this approach and is interested in continuing discussions with communities and regulators to determine a suitable framework to support this type of work.	Plan for another TK Panel session to focus on closure and post- closure monitoring at the Diavik site.
10.18	Watching/Monitoring and the WRSA-SCRIP, Session #10, 14-18 September 2017	Be grounded in strong communication and traditional laws around sharing, exchanging and stories.	Collaboration and sharing are the keys to success. Watching programs should be structured to include opportunities for sharing the rich stories that tell the history of the land and enrich monitoring outcomes. Scenarios that encourage sharing should be strongly supported.	Traditional laws Respect Recording knowledge	Recognizing that there are still many details to work out in relation to closure planning and monitoring, Diavik is generally supportive of this approach and is interested in continuing discussions with communities and regulators to determine a suitable framework for this type of work.	Plan for another TK Panel session to focus on closure and post- closure monitoring at the Diavik site.
10.19	Watching/Monitoring and the WRSA-SCRIP, Session #10, 14-18 September 2017	Start training for watching programs during mine operations by inviting community members to site, i.e. train-the-trainer program. For example, bring up people to work with Environment dept, starting with one weekend a month and scaling up over time	The Panel recognizes the benefit of training monitors now in order to carry forward those skills for closure and post- closure monitoring at Diavik and other sites. The Panel is supportive of community monitors that are able to work in both worlds of knowledge - traditional and western scientific.	Stewardship Intergenerational Recording Knowledge	Diavik currently invites and involves community members in some of their on-site monitoring however, it is largely program-specific. Additionally, we have had community members as employees throughout operations. Diavik will evaluate options for community assistants on some weekends. We also continue to support and encourage participation in the BEAHRs Environmental Monitoring program and the Environment and Natural Resources Technology Program offered through Aurora College.	Evaluate options for some weekend community assistants.
10.20	Watching/Monitoring and the WRSA-SCRIP, Session #10, 14-18 September 2017	Diavik should support and encourage the TK Panel to assess and review existing monitoring methods and results to help us determine what and how we should monitor in the future	The Panel focuses on closure planning and monitoring, but they are also interested in Diavik's operational monitoring and would like to learn more about monitoring programs, methods and results in order to determine if they are suitable for closure monitoring and, if so, how best to apply these to closure.	Stewardship	Diavik supports the TK Panel in this work. We have previously engaged the Facilitators for the TK Panel to compile some examples of TK and other monitoring to assist the Panel in developing ideas for monitoring at Diavik. We have also dedicated some of the past TK Panel sessions to monitoring and continue to plan for future sessions on this as well.	Provide a presentation on Diavik's operational monitoring programs to the Panel at a future session.
10.21	Watching/Monitoring and the WRSA-SCRIP, Session #10, 14-18 September 2017	Encouraging all of the communities working together and supporting each other long into the future will give us strength. Diavik has helped us do this and we must continue into the future.	The collaborative approach that the TK Panel has developed has been effective for all parties to learn and understand everyone's interests, views, ideas and limitations in relation to Traditional Knowledge, the mine and planning for the future.	Stewardship	Diavik views this as a recommendation to the TK Panel members and community organizations. We are pleased that the Panel recognizes the efforts we have undertaken to encourage collaborative work.	N/A

DDMI TK Panel Recommendations and Response Tracking - Monitoring & General (including TK/IQ Panel Process)						
NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
10.22	Watching/Monitoring and the WRSA-SCRP, Session #10, 14-18 September 2017	Diavik should plan to leave some buildings (and possibly the airstrip) to support Watching Programs for this and other mines in the surrounding area.	In order to conduct a watching program in the mine area long after closure, it would be helpful to have some buildings present that could be used for accommodation and monitoring activities. Communities will be interested in visiting and observing the area long after the mines are gone.	Stewardship Safety Reciprocity Intergenerational	Diavik is aware of the Panel's interest in having some buildings or infrastructure remain. Options for this will continue to be discussed with communities and regulators. Liability concerns and maintenance requirements may preclude some areas/buildings from being left but we understand that this is important in the North.	Determine possibility of leaving some infrastructure at site post- closure.
10.23	Watching/Monitoring and the WRSA-SCRP, Session #10, 14-18 September 2017	Diavik should support the development of a 'best practices' document that explains the Panel's approach to integrating TK into mine closure planning.	The TK Panel is proud of their cooperative efforts to ensure that TK informs mine closure planning in a meaningful and transparent way. The TK Panel is interested in summarizing and sharing their knowledge and approach with others, in hopes that others considering projects in the north of elsewhere can benefit either now or in the future.	Stewardship Intergenerational Recording Knowledge	Diavik is generally supportive of this idea, though we also think that the Panel's presentations and reports do a good job of summarizing the process and principles that underly the Panel's recommendations and guidance. Something like this may be more valuable further in the future, once closure plans advance and more is learned about how to practically apply these recommendations and guidance.	N/A
11.7	Options for Processed Kimberlite, TK Panel Session #11, 10-14 May 2018	The TK Panel recommends a future TK Panel session dedicated to the health of the North Inlet upon closure and to decide if there is anything to address with the sediments.	The TK Panel is very interested in water quality and wants to focus a session on the North Inlet as a key area to monitor.	Stewardship Safety	Diavik will dedicate a TK Panel session to the North Inlet Closure Plan.	Diavik to schedule a TK Panel Session for the North Inlet
11.8	Options for Processed Kimberlite, TK Panel Session #11, 10-14 May 2018	The Panel requests that Diavik provide a list of items/equipment that will remain and be removed from underground before flooding or filling the mine with PK/water.	The TK Panel wants to better understand what might remain in the pit in terms of how this waste may affect water, fish and the nature of the pit upon closure. The TK Panel embraces their stewardship role to make sure that waste is not left behind.	Stewardship Safety	Diavik is developing this list with the Inspector based on what was done previously at Ekati; it will be provided to the Panel when complete.	Once developed, Diavik will provide a list of items/equipment that will remain and be removed from underground before flooding or filling the mine with PK/water.
11.9	Options for Processed Kimberlite, TK Panel Session #11, 10-14 May 2018	The TK Panel recommends that their members are present for at least some of the time when the slimes are moved from the PKC into the A418.	The TK Panel suggested that the PK should be monitored for a time before the dikes are breached to ensure the PK is as expected.	Stewardship	Diavik has made development of TK-Based assessment of pit lake conditions with deposition of PK a priority and expects to address at Session 12 - September 2019.	If slimes are removed from the PKC to the mine workings, Diavik will organize a TK Panel session that overlaps with this event.
11.10	Options for Processed Kimberlite, TK Panel Session #11, 10-14 May 2018	The TK Panel wants to monitor how water behaves when placed on PK. They would like to see the PK and water in the A418 as soon as it is safe to do so and when there is a good visual of the material, as well as at regular intervals afterwards.	The TK Panel suggested that the PK should be monitored for a time before the dikes are breached to ensure the PK is as expected.	Stewardship	Diavik has made development of TK-Based assessment of pit lake conditions with deposition of PK a priority and expects to address at Session 12 - September 2019.	If PK is placed in mine workings, Diavik will organize a TK Panel session that overlaps with this event to allow TK Monitoring. This can be completed annually during the TK Panel sessions.
11.11	Options for Processed Kimberlite, TK Panel Session #11, 10-14 May 2018	The TK Panel recommends that they monitor the fish habitat within the pits, shoreline modifications (e.g., ramps) for wildlife as well as the stability of the dikes on a regular and ongoing basis.	The TK Panel suggested that the PK should be monitored for a time before the dikes are breached to ensure the PK is as expected.	Stewardship	Diavik has made development of TK-Based assessment of pit lake conditions with deposition of PK a priority and expects to address at Session 12 - September 2019.	Diavik has made development of TK-Based assessment of pit lake conditions with deposition of PK a priority and expects to address at Session 12 - September 2019.
11.12	Options for Processed Kimberlite, TK Panel Session #11, 10-14 May 2018	The TK Panel recommends that they monitor freeze-up and break-up within the contained areas (i.e., within the dikes) to see if the formation and melting is any different—with a view towards safety for people and wildlife.	The TK Panel suggested that the PK should be monitored for a time before the dikes are breached to ensure the PK is as expected.	Safety	Diavik has made development of TK-Based assessment of pit lake conditions with deposition of PK a priority and expects to address at Session 12 - September 2019.	Diavik will include recording of freeze-up and break-up within the pit lakes relative to Lac de Gras. Diavik will use air photography whenever possible so that results can be reviewed annually with TK Panel.

DDMI TK Panel Recommendations and Response Tracking - Monitoring & General (including TK/IQ Panel Process)						
NUMBER	REFERENCE	RECOMMENDATION	CONTEXT	TK VALUE/CONCEPT	DDMI RESPONSE	DDMI ACTION ITEMS
11.13	Options for Processed Kimberlite, TK Panel Session #11, 10-14 May 2018	The TK Panel would like to see the PK vegetation plots again.	The TK Panel is particularly interested in seeing "with their own eyes" how revegetation is working.	Stewardship Intergenerational Nature is self=healing	Accept. Can be done during any TK Panel Session.	Arrange for a tour of the PK vegetation plots at a future TK Panel session.
11.14	Options for Processed Kimberlite, TK Panel Session #11, 10-14 May 2018	The TK Panel recommends that we test slimes/PK in a fish tank to see if any water plants would grow on the PK.	The TK Panel discussed ways of minimizing the suspension of PK once it is put in the underground/pit ranging from installing screens to covering pit walls to adding soil, sediment or aquatic vegetation to try to stabilize the lake bottom.	Stewardship	Diavik does not accept this recommendation as aquatic vegetation is not expected to occur at over 100m of water depth due to light limitations.	None.
11.15	Options for Processed Kimberlite, TK Panel Session #11, 10-14 May 2018	The TK Panel would like to see wind behaviour on water within the contained pits/dikes over a period of time (i.e. throughout all seasons).	Concerns were expressed about the effects of wind on the pit areas at closure, particularly nowadays with climate change and winds becoming stronger.	Stewardship Intergenerational Experiential Learning	Diavik suggests the collection of video during different periods of wind behaviour would be a better method for making these observations; videos could be presented at the TK Panel Sessions.	If PK is placed in mine workings, Diavik will video wind behaviour on water within the pit lakes and review the video with the TK Panel.
11.16	Options for Processed Kimberlite, TK Panel Session #11, 10-14 May 2018	The TK Panel would like to see wind behaviour on Lac de Gras in and around the dikes. [How is the water on the outside of the dikes and breach areas affected by wind?]	Concerns were expressed about the effects of wind on the pit areas at closure, particularly nowadays with climate change and winds becoming stronger.	Stewardship Intergenerational Experiential learning	Diavik suggests the collection of video during different periods of wind behaviour would be a better method for these observations; videos could be presented at the TK Panel Sessions.	If PK is placed in mine workings, Diavik will video wind behaviour on water within the pit lakes and review the video with the TK Panel.

TK Value/Concept	General Description	Sub-themes
Traditional Laws	Relationships and rules between human and nature that are to be followed (when practicing traditional activities)	Relationships Roles Responsibilities Accountability Sharing Verification Rules Animals People
Symbolism	Ways in which beliefs are represented, and may include ceremonies	Place names Language Spirituality Ceremony Offerings Prayer Creator
Reciprocity	Everything is shared for the greater good	Communication Sharing Perspectives/Lens Cross-cultural Respect Mutual benefit Teaching Learning
Intergenerational	Everything done today impacts our families in the future	7 generations Family Future Circle of life Continuity Borrowing
Stewardship	Responsibility to protect the land and its resources	Teaching Elders Learning Youth Responsibility Respect Future Stories Caretakers Connection

TK Value/Concept	General Description	Sub-themes
Respect	Essential to demonstrate; providing support and a positive view of all living things and people	Knowledge Elders Being heard Traditional Roles Creator Accountability Ceremony All living things
Recording Knowledge	Oral tradition/culture that is recognizing an increasing need to formally document historical knowledge	Verification Sharing Trust Stories Cooperation Listening Documentation "In our own words" Language Future Review
Seasonality	Life flows with the change in seasons	Change Adaptability Freeze/thaw Migrations Cycles Provisions of the land Variability Norms Climate
Natural Condition	The preferred state of the environment from a traditional perspective	Nature Harmony Respect Safe
Social	Changing societal values that are influenced by globalization & access	Evolving Relationships Priorities Teaching Hobby Way of Life Adaptability Development Globalization Access Technology

TK Value/Concept	General Description	Sub-themes
Safety	Traditional practices that protect the land, animals and people	Respect Traditions Learned behaviour Accountability Responsibility Caretakers
Nature is self-healing	The land and water will heal itself, given the right conditions	History Respect Knowledge Spirituality Observation Connection
Consensus	Traditional leadership that seeks to find agreement	Respect Knowledge Observation Tradition Leadership
Experiential learning	Learning by observation and by doing	Elders Youth Knowledge Respect Understanding Observation

**Appendix G - DDMI Wildlife Management and Monitoring Plan**

# Wildlife Management and Monitoring Plan

The Wildlife Management and Monitoring Plan (WMMP) aims to document Diavik’s impact on wildlife, mitigate disturbances to wildlife, design studies and collect data that can be shared across the mining industry, and include Traditional Knowledge from community members where possible.



## What we look for

Research close to Diavik focuses on Barren-Ground Caribou, Grizzly Bears, Wolverines and Raptors.

## How we interact with wildlife

### Caribou

- Environment personnel monitor or scan group behaviour and habitat near the mine. In 2020, a total of 33 scans were completed.
- Most often seen during spring migration from Feb. to April.
- No mine-related injuries in 2020 – continues to be low levels of interaction on site.
- Always given right of way on roads at the mine.

### Wolverines

- Human and animal safety is priority with deterrence methods.
- One relocation occurred in 2020 and continues to be infrequent at mine.
- Covid-19 limited wolverine tracks surveys to one instead of two per year in 2020 and 2021.
- LKDFN member assisted and provided Traditional Knowledge in 2021 wolverine tracks survey.

### Grizzly Bears

- Grizzly bears continue to interact with mine, remain low risk due to mitigations, i.e., waste management.
- Environment team regularly does education and outreach on bear safety, reports any actions taken to GNWT.



### Raptors

- Daily to weekly pit wall inspections for nests, 2 confirmed in 2020.
- Birds directed into safer areas with GNWT-approved deterrents.

Grizzly and wolverine hair snagging programs ended with 2021 Wildlife Monitoring Workshop consensus

Diavik’s current footprint is 11.41 km<sup>2</sup> which is 1.26 km<sup>2</sup> less than predicted

# Vegetation and Lichen Monitoring Programs

Vegetation and lichen monitoring studies are completed by Diavik every 5 years. The next study will be conducted in 2021.



## Permanent Vegetation Plots (PVP)

30 PVPs have been established for study since 2001.

Some PVPs are arranged close to the mine and others further away for comparison.

## Methods and results

PVPs are analyzed for plant species diversity and abundance, looking for changes over the years.

Lichen samples are collected 6, 40 and 100 kilometres from the mine to test for metals content and if they are safe for caribou. Several extra collection sites were added at the direction of community Elders.

Soil samples are collected along with lichen to analyze soil chemistry.

Metals content in lichen samples have been decreasing over past 6 years.

Results from the most recent 2016 study suggest Diavik is having a small local-scale effect on species abundance and composition. Lichen abundance is lower while grass abundance is higher; likely caused by dust deposits.

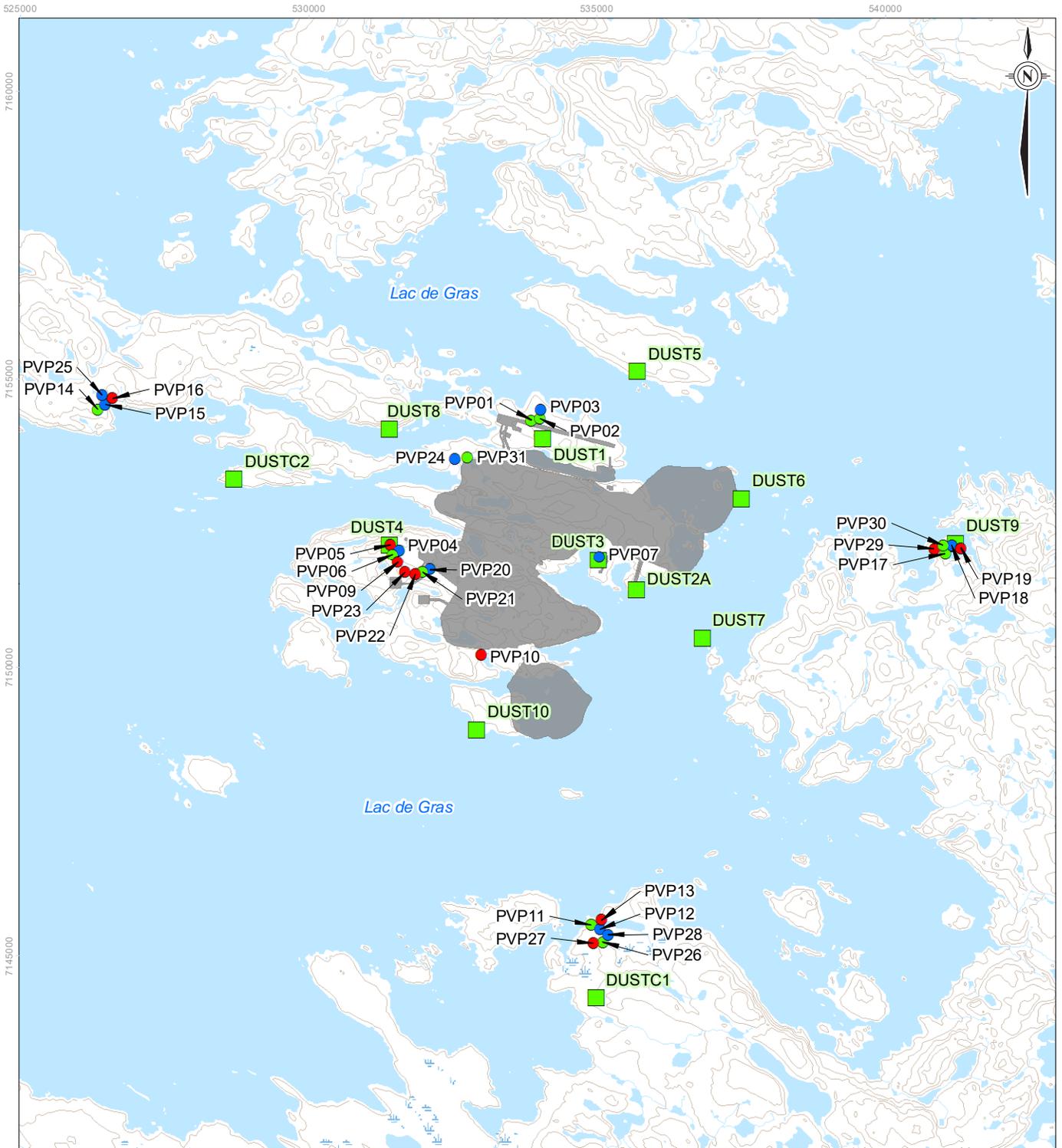
## 13 tubes

### Collect dust to monitor deposition around site

- Dust collection indicates changes in dust deposited during the year.
- Dust rates increase April to June.
- Snow core samples are taken to measure dust in winter.
- Other mines carry out their own dust monitoring programs.

Past studies were completed in 2001, 2004, 2006, 2008, 2010, 2013, and 2016.

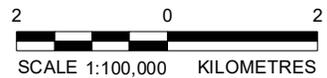
# Appendix H – Diavik Vegetation Monitoring Maps



G:\CLIENTS\DIAMIK\Figures\13-1328-0001\Phase 5000 - Veg Monitoring\Figure 2.2-1 - 13-1328-0001 Permanent Veg Plot Sampling.mxd Date: 1/27/2017 9:59:07 AM

**LEGEND**

- WATERCOURSE
- WATERBODY
- DUSTFALL COLLECTOR
- VEGETATION SAMPLE PLOT
- HEATH TUNDRA
- SHRUB
- TUSSOCK-HUMMOCK
- DIAVIK FOOTPRINT



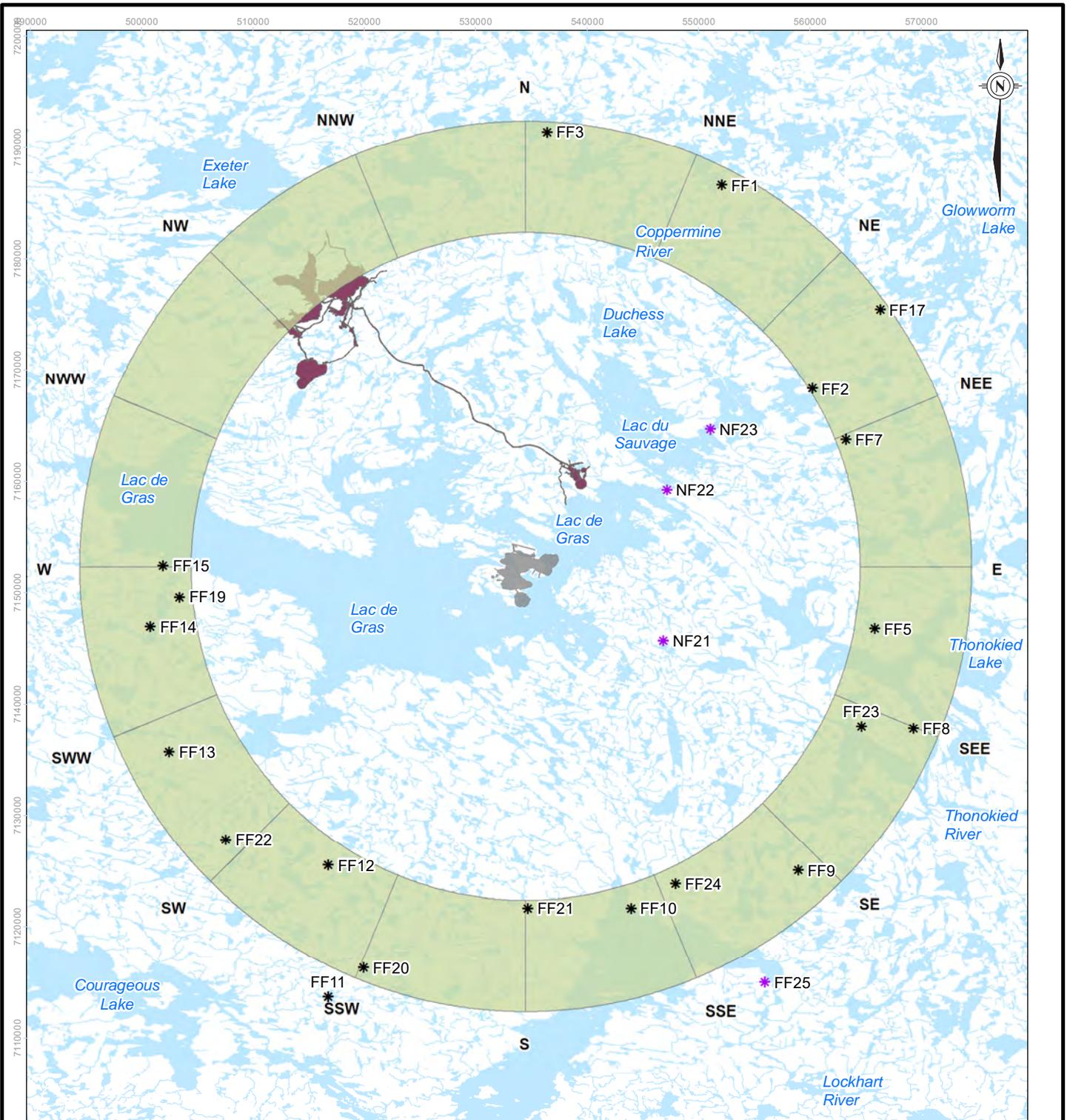
**REFERENCE**

CANVEC © NATURAL RESOURCES CANADA, 2012  
 NATURAL RESOURCES CANADA, CENTRE FOR TOPOGRAPHIC INFORMATION, 2012  
 NAD 83 UTM ZONE

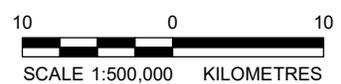
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TITLE	<b>PERMANENT VEGETATION PLOT AND          DUST COLLECTOR SAMPLING LOCATIONS</b>		
PROJECT	13-1328-0001	FILE No.	
DESIGN		SCALE AS SHOWN	REV. 0
GIS	SM/LR	26/02/14	<b>FIGURE: 2.2-1</b>
CHECK	KS	14/03/14	
REVIEW	JR	14/03/14	



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- LEGEND**
- WATERCOURSE
  - WATERBODY
  - HISTORIC LICHEN SAMPLING LOCATION
  - NEW 2013 LICHEN SAMPLING LOCATION
  - EKATI FOOTPRINT
  - DIAVIK FOOTPRINT
  - 30-40 Km ORDINAL BUFFER

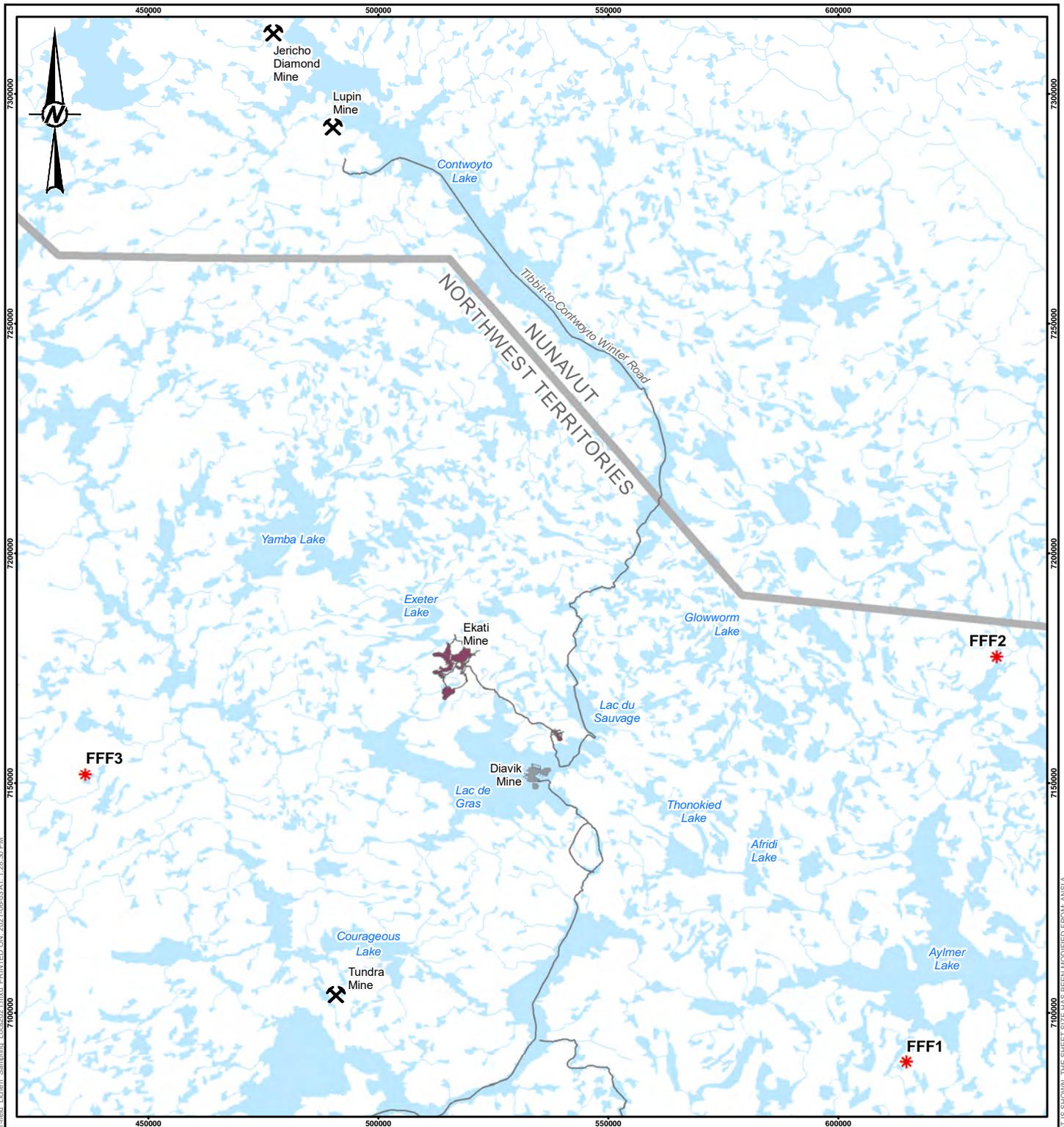


**DRAFT**

**REFERENCE**  
 CANVEC © NATURAL RESOURCES CANADA, 2012  
 NATURAL RESOURCES CANADA, CENTRE FOR TOPOGRAPHIC INFORMATION, 2012  
 NAD 83 UTM ZONE

PROJECT			
TITLE			
<b>FAR-FIELD AREA LICHEN AND SOIL SAMPLING LOCATIONS, 2016</b>			
PROJECT		1648005.2000	FILE No.
DESIGN			SCALE AS SHOWN
GIS	ANK	22/11/16	REV. A
CHECK			<b>FIGURE: 3.1-2</b>
REVIEW			

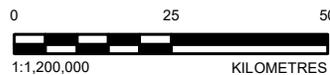




**LEGEND**

- 2021 LICHEN SAMPLING LOCATION
- MINE LOCATION
- WATERCOURSE
- WATERBODY
- EKATI FOOTPRINT
- DIAVIK FOOTPRINT
- TERRITORIAL BOUNDARY

**DRAFT**



**REFERENCE(S)**

1. BASE DATA OBTAINED FROM GEOGRATIS, © DEPARTMENT OF NATURAL RESOURCES CANADA. ALL RIGHTS RESERVED.  
 PROJECTION: UTM ZONE 12 DATUM: NAD 83

CLIENT

**Rio Tinto**

PROJECT  
 DIAVIK DIAMOND MINES INC.

TITLE  
**FAR-FAR-FIELD AREA LICHEN AND SOIL SAMPLING LOCATIONS, 2021**

CONSULTANT



YYYY-MM-DD 2021-06-03

DESIGNED CS

PREPARED ANK

REVIEWED

APPROVED

PROJECT NO.  
 21452119

PHASE  
 2000

REV.  
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FIGURE  
 3.1-3

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI/A