APPENDIX C.2

TEWG Meeting Records

Terrestrial Environment Working Group (TEWG) Final Meeting Minutes

Date: February 26, 2020
9:00 am – 5:00 pm (EST)
Location: Lord Elgin Hotel - 100 Elgin St, Ottawa, ON
Call-In Number: +1-416-814-2855 **Meeting ID**: 064701805

Member Organization	Participants		Member Organization	Participants	
Baffinland Iron Mines Corporation (Baffinland)	Lou Kamermans (LK)	I	Qikiqtani Inuit Association (QIA) and Consultants	Jeff Higdon (JH)	I
				Jared Ottenhof (JO)	N
	Genevieve Morinville (GM)	I		Bruce Stewart (BS)	I
				Susan Leech (SL)	I
	Emma Malcolm (EM)	I	**Observer Organization**	**Participants**	
	Kendra Button (KB)	I	Canadian Northern Economic Development Agency (CANNOR)	Arusa Shafi (ASh)	I
				Adrian Paradis (AP)	N
			Natural Resources Canada (NRCan)	Camille Ouellet-Dallaire (COD)	I
			World Wildlife Fund – Canada (WWF)	Andrew Dumbrille (AD)	N
Mittimatalik Hunters and Trappers Organization (MHTO)	Phanuel Enooagak (PE)	I		Brandon Laforest (BL)	N
	Enookie Inuarak (EI)	I	Nunavut Impact Review Board (NIRB)	Solomon Amuno (SA1)	N
	Amanda Hanson-Main (AHM)	P		Cory Barker (CB)	N
Environment and Climate Change Canada (ECCC)	JF Dufour (JD)	N	**Baffinland Consultants**	**Participants**	
	Paul Smith (PS)	I	Environmental Dynamics Inc. (EDI)	Mike Setterington (MS)	I
				Lyndsay Doetzel (LD)	I
Government of Nunavut (GN) and Consultants	Brad Pirie (BP)	I		Brett Pacagz (BP)	I
	John Ringrose (JR)	N			
	Natalie O'Grady (NO)	I			
	Stephen Atkinson (SA)	I			

P - phone in participation, **I** – In person, **N** - Not attending

Updated to reflect comments provided by QIA on draft meeting minutes

Discussion and Comments
Baffinland Update
Baffinland (LK) welcomes all participants from member and observer organizations, and provides a safety share on incoming bad weather, slips, trips and fall and associated caution when traveling. *LK also shares Baffinland's recent adoption of Inuit Societal Values into its corporate value system. Many of these apply specifically to the functions of the Working Group and should be considered in discussions throughout the day.* LK: Once a summary of Baffinland's operations is discussed, the focus of the morning's discussion will be on the Terrestrial Environment Working Group (TEWG) Terms of Reference (ToR) in order to allow adequate time for suitable discussions.
Baffinland (LK) presents an update on Baffinland 2019 activities, as described below. <u>2019 Production Overview:</u> LK: We had a target of 6 million tonnes for year 2019. We were able to ship 5,861,277 tonnes during the shipping season out of Milne Port. To provide some context on trucking activities on the Tote Road, there were on average, 238 ore transits per day, 43 other Project-related transits (i.e. personnel transfers, etc), which brings the total to a daily average of all Project vehicles to 281. <u>Response to 2018-2019 NIRB Recommendations</u> LK: One of the Nunavut Impact Review Board (NIRB) recommendations in their 2018-2019 Annual Report was specific to dust management and the need to provide the design of the Dust Stop® trials which were initiated in September 2019. Improved dust suppression was visually observed over a three-day period throughout the application zones. Additional applications are planned for 2020. LK: Another NIRB recommendation was with regards to studying baseline metal levels in foraging caribou with a request for Baffinland to develop a timeline in conjunction with the GN, MHTO to complete development of a sampling protocol and study methodology to monitor metals in organ tissue from caribou or other wildlife harvested in the Regional Study Area (RSA). Baffinland is seeking to work with Mary Gamberg from Gamberg Consulting who has implemented numerous caribou tissue sampling programs throughout Canada's Northern regions through funding received by Northern Contaminants Program. An application has been submitted to obtain funding through this same Program, which is currently under review. Next steps will be planned based on outcome of application, and this will include engagement with the MHTO. JH: The GN has closed caribou hunting for 2020, so I do not think you will be able to actually complete that sampling this year. BP: Actually it is only closed until June 2019. SL: For tissue sampling, would you only run this program if you get funding? EM: This is the first mechanism that we have pursued for trying to implement this program. BIM has also provided a portion of funding for the application. If we are not successful in getting funding, then we would look at other means for meeting this term and condition. SA: Can we be provided a copy of the study design? LK: Yes, if the study goes ahead we could have Mary come in to give a presentation to the TEWG. SA: The program is Baffinland's responsibility to complete though, correct?

SL: Yes – you should show that you have a back-up plan in place to meet the term and condition if funding is not approved.
LK: We believe the current course of action proposed will most effectively integrate all relevant parties (e.g. the GN and MHTO) into the monitoring programs. We will consider alternatives as needed.
SA: The spatial component of where caribou are harvested will be important. I also wonder whether it will be important to sample rumen as well, because it will give you a sense of what caribou have eaten in the past 24 hours or so.

TEWG Terms of Reference (ToR)
LK: Baffinland submitted an updated ToR on October 15 2019 as part of our response to Final Written Submissions (FWS) for Phase 2. We discussed this yesterday in the MEWG meeting and a path forward was agreed upon. It was decided with that group that the GN would provide an updated draft that takes into consideration the version submitted by BIM in October, and then will circulate for comment to the TEWG with the expectation that all parties provide feedback by April 3. Once all comments are received, BIM will release a final draft, recognizing that ultimately responsibility for the governance of these Working Groups sits with Baffinland.
SL: Do you have a summary of the areas of alignment versus areas that are still outstanding?
LK: We are going to work with the GN to better characterize where there is agreement or disagreement regarding the ToR. They will include a preamble as part of that submission. **(ACTION)**

Government of Nunavut Regional Monitoring MoU Update
LK: We are continuing to make progress on finalizing the Memorandum of Understanding with the GN for regional caribou monitoring. We will be offering in-kind support to GN for the Spring 2020 composition surveys, and a collaring program if it receives support from the Hunters and Trappers Organizations (HTOs).

Inuit Participation in 2019 Monitoring
LK: We continue to improve Inuit participation in our monitoring programs in 2019. Improvements in this area is a continuous goal for us to get our numbers up and we will continue to share updates about this.

2019 Draft Terrestrial Environment Annual Monitoring Report
Draft Report will be provided to the TEWG in the near-term for review and comment. And we will provide responses to all comments. Review of all the changes that have occurred to the programs as a result of TEWG feedback is considered and is captured in the updates to the Terrestrial Environment Mitigation and Monitoring Plan (TEMMP) and/or the most recent terrestrial annual report. We track what changes are being made to the programs and why, so that we have a historical record of feedback received and rationale to support any changes that have been made.

*****ACTIONS*****

1. **GN** to distribute to all TEWG members the latest draft of ToR submitted by Baffinland in October 2019 as part of P2 Final Written Responses package to the NIRB, along with their newest recommended changes, and all previous track changes made. Date of distribution to MEWG and TEWG members proposed is by March 6, 2020, with the expectation that all parties will provide feedback by April 3, 2020 for Baffinland to consider.

2019 Terrestrial Monitoring Program Overview

Bird Monitoring

Red knot Monitoring

MS: Baffinland contributed to regional red knot monitoring with Environment and Climate Change Canada (ECCC) in 2019. There are three NIRB Project Certificate No. 005 Terms and Conditions that govern the red knot and SAR monitoring: 67, 73 and 74. These will continue to be relevant as new Species at Risk (SAR) are identified throughout the life of the Project. These programs are designed as detection surveys. There are two subspecies of red knot on Baffin Island, one of which is endangered and one of which is listed as special concern. Baffinland supported deployment of continuous red knot recorders in 2019 to identify whether or not there are any red knot within the Project area.

Pre-clearing Active Migratory Bird Nest Surveys

MS: Baffinland also conducts pre-clearance surveys before any construction is undertaken within the Project Development Area (PDA) throughout the summer. This is done in accordance with Project Conditions (PC) 66 and 70. If nests are found, we are required to set up species-specific buffer zones and cannot proceed with construction until migratory birds have fled their nests. Site team uses rope drags to be able to identify any nests. If construction does not occur within 5 days of the clearance surveys, the survey will be rerun before any construction can start.

ECCC also recently also asked to start reporting on how much clearing work is done outside of the breeding bird window acknowledging that the best mitigation is to just avoid this period altogether. In 2019, 77% of clearance work occurred outside of the breeding bird window.

Raptor Occupancy and Productivity

MS: The other monitoring that is done for birds is the running of raptor occupancy and productivity surveys to meet objectives of PC 74 and 75. Peregrine falcon are a good indicator because they have been nesting in the area for thousands of years. Cliff-nesting raptors may move from time to time, we have about 300 nests mapped from Steenbsy Inlet to Milne Port. The objective of this monitoring program is to distinguish Project effects on raptor occupancy and productivity from natural variation.

There are 165 nesting sites that are surveyed in and near the Project. The gyrfalcon is no longer a good indicator species because we have only seen six gyrfalcon's since the start of the project, and this also falls outside of our monitoring season. One collared lemming was caught during 2,880 trap nights of small mammal monitoring. We continue to see a cycle where some years we are seeing a lot of lemmings and the next year the population drops quite significantly.

Results are showing that we are not seeing any Project effects in terms of distance from the Project. In other words, occupancy levels are consistent with reference sites, so changes in population levels do not seem to be related to the Project. We have also seen that rough-legged hawks might be a good indicator species as well. There is a lot of research being gathered through this program that go beyond Project effects monitoring needs. We also monitor for reproductive success by looking at the number of eggs in each nest.

JH: Have you seen any caribou while doing raptor surveys?

MS: No.

SL: Do you look at variation in reproductive success and occupancy proximity to the mine site itself, including variation relative to heavily active areas versus areas that are further away?

MS: Yes. That is one of the key aspects of the program design to understand how varying distances affect these variables.
SL: Can you point us to where we can find that type of information in the report. I am curious to know if you are picking up that kind of information
MS: The study design has been set up with enough power to detect that if changes are occurring we would definitely pick up those changes.
PE: We used to have a lot of snow geese around the Port. Do you still see those at Milne Port? Is it still like that? Are the snow geese nesting there?
MS: We do not monitor specifically for snow geese. We see most of the molting geese near the lakes south of the mine site.
KB: Most of the snow geese you will see at Phillips Creek near the Milne Port. We also see them around KM 20 along the Tote Road. We also see snow geese at the airport where there is pooling water near the airport. We will see them during the open-water season. We have not seen any nesting that I know of within visual observation range. They are usually just resting.
MS: When we started doing the baseline work we looked specifically for nesting snow geese, we did find some individual nests at Milne Port, but not significant numbers; more so down at Steenby Inlet. We would also see them on the lake south of the Mine Site molting.

ECCC and Baffinland Collaboration on Red Knot

PS provides an update on the recent ECCC and Baffinland collaboration on red knot.

PS: ECCC also just launched the Inuit Field training program that I will touch on briefly.
BS: Do you have a PDF you can share of this presentation?
PS: Yes, we can share a copy of this**. (ACTION)**
PS: The red knot population have declined over the last 40 years. There is an area of overlap between the subspecies in the North Baffin area. We do know that red knot can go as far north as the Mine Site, however we do not know if it is a regular habitat for them, or if detections have been more of anomalies. In response, we deployed nine Automatic recording units in the summer of 2019. This allowed for continuous recording from end of May to early October.
PE: Which species are you referring to? Sandpipers usually appear in the fall when it is getting colder and they appear along the shoreline. What are the sandpipers that you are studying by the shore? They are never on mainland.
PS: It could be a translation issue. There are few different types of sandpipers. The names used are sometimes different in different communities.
PE: You will see those red sandpipers along swamps and lakes and rivers. They are a smaller species. There are two other species, which are similar but smaller than the sandpiper but they only appear in the fall. We do not know where they nest because they only appear in the fall.
PS: That's what we have observed as well. They will nest inland away from other birds, and then they will fly to wetlands like in the areas you have suggested to feed. We have been using technology to help better track this.
PS: So we put the recorders in different habitat areas. Recorders were analyzed with an automatic recognizer that was conservative to ensure we were able to manually analyze any sounds that may be red knots. This was a very significant effort, and in these recordings, we never heard once a red knot. It is therefore the opinion of ECCC, that this level of effort was appropriate for determining that there are no red knots in the RSA.
PS: One of the good things about this dataset is that, we will be able to go back to it in order to identify if the species that are listed as SAR throughout the life of the Project to check if those species are present in the RSA.

PS: BIM has also contributed to the Program for Regional and International Shorebird Monitoring (PRISM) surveys across the Arctic, and that program is now complete. We are now able to assess densities for these populations. We are also able to better characterize Project effects, by pooling data across mine sites so that we can examine whether or not there are trends occurring in terms of how mining activities are affecting bird populations. Basically using pooled data, we are looking to see how densities change as you get farther and farther away from the mine. Preliminary findings suggest that birds are continuing to use habitats even in areas near mine sites.
PS: The other thing I want to discuss is the Inuit Field Training Program that ECCC has started up. Our hope over time is that this will increase capacity for Inuit environmental monitors within Nunavut communities. Baffinland has contributed to both terrestrial and shorebird surveys which has allowed us to increase overall funding. We now have multiple Natural Sciences and Engineering Research Council of Canada (NSERC) funding and we now might be able to use funding to investigate additional research questions.
SL: I'm curious to know what the scope of the funding activities are? I'm wondering if some of this funding could be used to further assess the recordings we have already collected.
PS: Potentially. For example, we were thinking of having a graduate student assess which times bird recordings are most present and then you could improve future monitoring efforts to have them focused on times when there is a temporal overlap. The scope of the programs is pretty broad, with a focus on areas within our expertise.
SL: So if we have ideas we can bring them to the group. Because it would be worthwhile figuring out what we think are priorities.
BS: Have you considered deploying the continuous receivers at Steensby Inlet so that you have baseline?
PS: Yes, that is something that might be worthwhile to consider. We are interested in that but it would not be a requirement in my view.
BS: My understanding is that Baffinland is planning to have Steensby Port running by 2024, so it would be helpful to get that baseline now.
JH: As far as Steensby Port goes, there is a need in the Project certificate where baseline is required, but it not specific to red knots.
PS: With regards to baseline. We did establish a camp of Charles island so we do have the ability to support with some baseline data collection.
LK: We are turning our eyes more towards the Steensby Port. Our plan is to first develop Phase 2 and then transition those construction crews to Steensby area. Once we have a firm timeline we will bring those plans to collect additional baseline.
COD: I am wondering if you could use the recorders to look at incidental observations for other species?
PS: I am not sure if there is enough vocalization from caribou to be able to detect this.
JH: Were any wolf howls picked up on the recorder?
PS: We haven't looked at that, but that is a good idea.
SL: We talked about the potential for using monitoring stations for looking at carnivore abundance. Because of the timing between these meetings it would be helpful to meet and find out what the effects are of the mine.
PS: I am open to whatever framework people prefer. Obviously the mine would also need to be part of those conversations.

Dustfall

LD: Relevant PC Conditions: 54, 36, 50 and 58c require Baffinland to undertake dustfall monitoring and outline the reporting requirements. This program is strictly based on passive dustfall samplers. One of the biggest contributors to dustfall is the trucking operation. So we track all the truck transits both the ore

haul trucks and other vehicles (i.e. trucks, buses, freight, etc.). The total average number of transits per day was 238. This was quite similar to the predicted amount of transits for 2019, which was 236. When you see the final report, you will note also note we have included the number of transits anticipated and then the actual average.

2019 Dustfall Expansion Sites

LD: At the request of the MHTO and QIA we added 6 new additional dustfall stations - at 30m, 100m, 1000m and 5000m.

2019 Dustfall Mitigation

LD: Some of the mitigations employed in 2019 included continuous installation of the shrouding at crusher circuit transfer (which began in 2018). Baffinland is also monitoring drop heights to reduce the size of the dust plume generated during loading. Baffinland is also continued to update the ore pad design to ensure that fines are kept within the centre of the stockpile to the extent possible. There are also efforts to minimize truck transits to the extent possible. There was also the dust stop trial in 2019; the product was shown to reduce dust kick up from truck tires.

Dustfall Magnitude and Extent

Various slides showing results on magnitude and extent of dustfall at Mine Site, along Tote Road and Milne Port, dustfall sites 1 km from PDA, Seasonal Dustfall and Annual Dustfall Trends are presented by LD.

LD: There were questions from the MHTO/GN last year on whether it would be better to have ground level dust fall monitoring, instead of 2m high. If you are on ground level, you can end up with dustfall that is actually a result of other disturbances (i.e. animals). Keeping it at 2m high allows you to better discriminate for Project effects. And you would also have to standardize your sites to account for varying types of vegetation. Essentially having dustfall stations at ground level would introduce a lot more uncertainty into the study design.

LD: Three sample locations, near, far and reference at Mine site. No distance categories at Milne Port. 30, 100, 1000 and 5000 from Tote Road. We also spent additional effort in 2019 analyzing 1-km distance sites from the Tote Road.

LD: The primary dustfall sources at the Mine Site are the airstrip, crusher and traffic on the mine haul road. At Milne Port the greatest sources are the ore pad, quarry, Tote Road, sealift traffic, equipment pad. Dust along the Tote Road continues to be higher at the south crossing than north crossing.

PS: Is the dotted line the detection limit.

LD: Yes – it is 0.1 mg/dm (decimeter) per day.

PS: Has anyone ever tried to establish what would be considered a threshold for dustfall. In other words to establish what would be considered an environmentally significant level of dustfall?

LD: There is not a level of dustfall specifically that is a concern, instead this is monitored through the receiving environment to see whether or not dustfall is affecting the environment.

LD: In all sites at the Port we are seeing higher levels of dustfall in the summer, which is primarily attributed to ship loading. Similarly, sites were higher at the Tote Road in the summer. What we see along the road is that winter dustfall is consistent year-over-year. Dustfall along the road seems to be fairly influenced by weather. For example, in 2018, it was a cool and rainy summer and it kept the dustfall levels down.

SL: This is a lot of data to take in. There seems to be two main sources of dust, dust from the ore and dust from truck traffic. Yes, there may be some sources of noise if you reduced the height of the dustfall

samplers. We really need to understand what the effect on the quality of the vegetation is further than 1 km outside the road.
LD: As far as teasing apart ore dust and vehicle dust, we do that as best we can, by the placement of the dustfall samplers (i.e., we know that one is along the road are associated with vehicular traffic). If we were to investigate varying heights of where dustfall samplers would be, that wouldn't necessarily be relevant to Project-effects monitoring.
BP: We are going to be looking at a relationship between metals in dustfall versus what is in the vegetation. So this will help us better understand the effect.
SA: If you think about how dust is generated and falls, it seems like if you are monitoring at 2 m. You're going to be missing a lot of information, because dust redistributes when it falls. So you may be missing out on the extent. Why not put different height stations at the same site which may allow you to compare if your results are the same at 1 m vs 2 m height samplers.
LD: Realistically 2m is a standardized height that all jurisdictions use, so by leaving them at 2m we are able to compare to other projects, etc. Doing what you propose is really just establishing a research project. It does not mean we cannot do it, but it will run the risk of creating additional uncertainty in the 1-m dataset.
SA: It is important to better understand the spatial scale of dust from the Project to be able to see how dustfall deposition and dispersion is affecting caribou forage.
PS: ECCC's position on another mine site was to use the standardized approach (i.e., setting dust samplers at 2 m) and not a non-standardized method (i.e., 1 m; though ECCC did not explicitly indicate that both could not be done).
LD: There is vegetation monitoring that partners with this dataset, so we could expand the dustfall monitoring program, but we are doing vegetation monitoring that goes hand in hand with this.
SL: Ok, should we get the Working Group's perspective on whether or not we should do this?
LD: Why do we not wait until we hear the vegetation presentation this afternoon so we are working with a complete set of information before we further evaluate the need.
BS: Inconsistent y-axis scales on the figures are obscuring data differences among the mine, port, and tote road sites by preventing direct comparisons (e.g., Master presentation slide 34 of 127). This problem was identified in comments on the 2018 Terrestrial Environment Monitoring Report. Where figures are provided for comparison the y-scales should be consistent to facilitate comparisons.
LD: Ok, we can think about this. **(ACTION)**
LD: Consistent trend year-over-year is that dustfall is higher in the summer than the winter, particularly at Tote Road and Milne Port. All dustfall stations at the Mine site were predicted to experience high levels of deposition.
LD: Dustfall was generally higher this year near the ore haul road than at the airstrip at the Mine Site, dustfall was higher in general at Milne Port in 2019. Dustfall at 1 km was measured at 12 sites in 2019; low at all sites. In 2020 we are looking to expand geographic distance of the program to better assess spatial extent and investigate ways to better mitigate historically dustier areas.
SA: You mentioned plans for future monitoring – I was wondering if you have given any thought to baseline monitoring for dustfall along the railway.
LD: As we look at where to deploy additional dust fall monitors at Milne Port, we have been looking to design these to account for potential infrastructure associated with Phase 2 (e.g. the rail yard). We have not planned specifically for doing baseline along the railway at this point.

Vegetation

Various slides showing methods and results on various vegetation monitoring efforts undertaken in 2019 are presented by BP.

Vegetation Abundance

BP: There are three vegetation monitoring programs for vegetation: abundance, vegetation and soil base metals and exotic invasive. PCs 36, 38 and 50 govern the vegetation abundance monitoring program. The objective of the program is to monitor percent cover and group composition of available caribou forage within the RSA to track potential changes at varying distances along the edge of the PDA. Nine new reference sites were added for the vegetation abundance monitoring to minimize confidence intervals and reduce variability among reference sites. This was done based on a previous recommendation made by the GN.

BP: We also conducted a soil moisture study in 2019 in response to ECCC comments on the 2018 draft monitoring report. To assess soil moisture, we dug soil pits. Within each soil pit we looked at several variables to characterize 7 moistures within the drainage pits. There were a total of 15 reference sites. And 75 monitoring sites. This design was chosen based on the hypothesis that vegetation near the project site would be more affected than areas away from the PDA We looked at 30 m, 100 m, 750 m, and 1200 m. We are looking at Moist to Dry Non-Tussock Graminoid/Dwarf Shrub. This habitat type was selected based on relative abundance and use as caribou forage. In 2019 we monitored a total of 179 plots; with 100 measurements in the ground layer and 100 measurements in the canopy layer.

PS: How do you know what is canopy and what is ground layer?

BP: In the tundra it is fairly easy to visually distinguish this. The canopy layer is the first plants – what we constitute as the ground layer is anything below the canopy, but also using understanding of what are considered ground layer plants (i.e., moss).

BP: In 2019 we conducted a five-year trend analysis.

COD: When you say that you put in a cage, is it installed at the time of sampling?

BP: No, the closed plots are permanent. They are designed to ensure there are as few confounding variables as possible. At each plot there is a closed site and an open site.

BP: What we found is that in the last five years, there is no significant difference in ground covers. Where changes were seen, they were happening as well as at reference sites; indicating that there is not a Project effect. We would say there is a Project effect if we saw differences across the different distance classes. Differences were small and consistent across difference classes.

PS: Can you clarify what you mean by ground cover?

BP: The percent total ground cover includes any vegetation that is hit within that ground cover. We exclude rocks, algae, etc. They were considered a targeted forage input.

BP: We saw a difference in total percent canopy cover. There were changes over the five-year period among the years, and at different distance classes; however, there was no consistency or no obvious trends at this point that would indicate a Project-related effect. We also assessed our open versus closed plots. Overall no differences were found in the data between open and closed plots. We did find some suggestive evidence of higher cover in the open plots than the closed plots. In the ground layer, we focused our assessment on evergreen shrubs, lichen and moss and ground litter. We did see differences in cover across years, but the general trend was that these were consistent across all distance categories. Based on this we do not think this is representative of a Project effect, but rather natural variation. There was also evidence of a year effect on both lichen and moss when comparing 2014 relative to the other years. I suspect the difference is due to higher variability in the data, because we had less than half the sample size in 2014.

COD: Is the mixed linear model appropriate for assessing this data? I would suggest to look at different types of analysis that you do not have to normalize.

BP: I am not the biostatistician who designed this, so I would need to look into this more.

PS: A mixed model has a random effect. Do you know what that is? I am struggling to understand where that would not be considered significantly higher. This is why I suggested you look at moisture, because I think there might be differences in habitat type between the Tote Road and the Reference sites.
BP: Results of the soil moisture study shows that we did not find any difference in moisture across distance classes. The majority of the sites had average to above average soil moisture. Only about 7-9% were considered wet.
PS: How was the soil moisture class established?
BP: It is based on standards from across Canada (BC, Yukon, Ontario and NWT).
SL: Does your list of reference sites include the new reference sites? If you take out the reference sites, do you have a different percentage of wet sites?
BP: Our statistician ran an ANOVA to see if the new reference sites would bias those results. But she verified that we did not have a bias there.
PS: When I look at this table, you should be using a different way for assessing averages. This really could be the reason you are seeing the differences between the distance classes. Even if the mean is the same, the distribution is different. You could relate moisture category as a predictor in your model. I will follow up with the biostatistician about this. **(ACTION)**
BP: Based on the summary of results, we are proposing delaying vegetation monitoring until 2021.
SL: Can we discuss resuming vegetation abundance monitoring further.
PS: Is there any way to put your vegetation bands into dustfall distance classes?
BP: With the vegetation abundance monitoring program, when we designed it we were using all available information (e.g. dust isopleth modelling) and literature to select the distance categories.
PS: I am wondering if you have the ability to measure the veg plots that are near the dustfall samplers as possible.
BP: They are as a close as possible, but we do have plots in near distance categories close to the 30 m samplers in areas that are historically dustier.
PS: It would be helpful to actually have results that compare vegetation abundance to dust.
SA: I agree, it would be good to use dust as a categorical variable, instead of distance.
BP: I think KM 80 is where that gap is that we could fill that.
SL: Could you pull out sites that are near higher dust areas?
BP: We did pull this for the metals monitoring, but for vegetation abundance, we were limited. We would have a limited number of plots to do this with. It's probably best to start with by doing this near the road. I will make a note of that. **(ACTION)**

Vegetation and Soil Base Metals

Various slides showing methods and results on vegetation and soil base metals are presented by BP.

BP: PC Conditions 34, 36, 38 and 50 dictate requirement for soil and vegetation metal monitoring. Baseline sampling was conducted from 2012-2016. In 2015, we did a power analysis to determine the minimum number of sites required to assess project effects. We focused on 6 metals. We determined these based on baseline metals, what metals were present in the ore, literature review, etc. 2019 marks the first post-baseline monitoring year. All samples were divided in half to assess both washed and unwashed samples. This was important for understanding whether lichen as an indicator species was absorbing metals in the dust. The species of lichen we selected were from 2 genus types. This was needed because of varying conditions between the Mine and Milne Port sites (where *Cladina* does not exist). In 2019 we sampled 57 sites. The power analysis determined that a minimum of 50 sample sites was required. They were sampled in 3 distance categories (Near within 100 m, Far = between 100 to 1000 m, and Reference = over 1,000 m away).

BP: We used CCME guidelines to evaluate metals of soils in the PDA as well as a consideration of baseline, and potential ingestion rates and consistency with the risk assessment conducted by Intrinsik for the Project. Where thresholds were not defined we established indicator values, which are a metal concentration that was developed based on scientific research that may signal a change in vegetation health. The values are predictive and we do not have certainty if they are going to affect vegetation health.

Results - Metals in Soil

BP: Samples were below available CCME and the majority of samples were below detection limit, with the exception of one site near the mine where they saw exceedance of CCME guidelines for copper. The sites nearby did not have an exceedance, and we also assessed the dustfall sample near the site, so we suspect it is likely a sampling error, rather than a true exceedance. We saw an increase in arsenic near the Port site; the greatest increases were near Port infrastructure. Although we are seeing an increase relative to baseline, all of these samples remain 7.8 times below the CCME guideline.

Results - Metals in Lichen

BP: All samples for metals in lichen were below indicator values with the exception of lead. We did see increases in metals in lichen from baseline near the PDA. For all Project areas, metal concentrations increased from 1.5 – 2 times the baseline value across the Project area for all the metals listed there. We are investigating at which distance the increases are occurring.
SL: Is this is the washed lichen samples?
BP: Yes, I will speak more to this shortly.
BP: There is a range in the indicator value for lead in lichen. There is a range because we do not know within this species specific area what the target number is. One sample of lead in the lichen was at the upper value of the indicator range, while most of them were at the bottom. We think it is reasonable to suggest that the increases in lead in lichen could be a result of increased vehicle traffic.
SL: But you are not seeing lead in the soil?
BP: Lichen is unique because it has a greater absorption of atmospheric contributions. That is also one of the reasons why lichen is considered a sensitive indicator.
EI: Have you tried considered testing for asbestos?
BP: No we have not.
LK: We did look into asbestos as part of the Phase 2 review. We were investigating whether or not this would be a concern in the rock. We can look into this and get back to you. **(ACTION)**
BP: Analysis found there was no difference in metal concentrations between unwashed and washed lichen.
PS: Recommend to include screening for mercury and iron as part of the monitoring program. **(ACTION)**

Exotic Invasive Vegetation

BP: PC Condition No 32, 37, 28 and 50 address risks of exotic invasive vegetation. Prior to 2019, it had been five years since exotic invasive vegetation had been conducted. We have provided two definitions: one for what is considered “exotic”, and one for what is considered “invasive”. The objective was to determine if “exotic invasives” were present. Surveys were conducted along the entirety of the Tote Road. The survey at Mine and Port primarily focused on previously disturbed areas. There were 53 survey hours of effort. Incidental observations if they occurred were also being tracked. We did find 20 garden tomato plants growing near the sewage effluent discharge area. These were determined to not be acting “invasive”. None of the plants appeared to have the capacity / moisture to produce flower or fruit. As

they moved away from the effluent pipe, the plants appeared in worsened condition in areas where less nutrients (e.g. away from effluent/sewage pipe) were present.
Other opportunistic findings included horned dandelion, which are no longer considered a species of concern and have been found in past years. For future years, we are recommending doing additional monitoring near the sewage / effluent pipe and to remove the tomato plants.
PS: You say you determined the indicators/metals based on expertise, but you did not mention mercury.
BP: We do actually screen for a full suite of metals. We are not picking up mercury in lichen right now, but it is something that we will continue to examine.
PS: The more likely pathway for lead is emissions.
BP: Actually that did not make sense because lead levels are so minimal in diesel, but it is relevant for dust.
PS: You should also be monitoring for iron in the marine environment. Methylmercury is the one that you should be looking at.
LD: This is something that is on our radar. We do collect that data, but it is not even hitting detection levels.
BS: Are you doing anything to connect dustfall effects on freshwater?
KB: There are 40 different sampling sites along the Tote Road. We will be including this information in our QIA/Nunavut Water Board (NWB) monitoring report.
BS: Some of the sites shows there has been a significant amount of dustfall, and I think with the elevated levels you should be looking at the freshwater biota.
LK: This is something that has been flagged through our Phase 2 so we are looking into this further.
SA: I just want to review some of the recommendations coming out of today: Follow up for incorporating soil moisture into modelling. The second one was looking at a variable that expresses the extent of dustfall as an alternate to using distance from site in the vegetation cover analyses. We also talked about adding dustfall samplers at other heights.
SL: We were also going to talk about whether or not we push out vegetation sampling to 2021.
EM: In accordance with our Working Group schedule, BIM will give some consideration to request to run vegetation abundance monitoring again in 2020, and we will discuss with TEWG at next meeting where 2020 monitoring program designs are reviewed with the group.

Question to the group regarding installation of dustfall samplers at 1m height.
No comments from MHTO, CANNOR, NRCAN, ECCC doesn't support based on precedent with other Projects – QIA and GN support.

LD: I just want to make sure we are only requesting this is only for seasonal samplers because we would not be able to do this in winter.
MS: After the June 2019 TEWG meeting, I was also supposed to follow up with NRCAN to talk about dustfall sampling. It may be helpful to have NRCAN to participate in these discussions with one of their dustfall experts.
COD: We can check and see if this is possible. I will have to come back to you on that. I will look into that. **(ACTION)**

Terrestrial Mammals
MS: Program consists of three types of surveys, all long-term annual programs.

Snow Track Surveys 2019

MS: Snow track surveys are aimed at tracking animals that cross the Tote Road. The Tote Road has always been there. These are associated with Project Conditions (PC) 54 and 58. The latter PC comes from other areas that have caribou where this type of work can be undertaken. We did see two caribou crossing the Tote Road in 2020, but that is not included in the 2019 report. The surveys are being run monthly, when there is fresh snow, from about November onwards, and when there are suitable daylight hours to complete the survey over the entire length of road. We observed lots of Arctic fox tracks and examples are shown here (slide 95). We record weather conditions prior to snow track surveys. It is ideal to do the survey within 24-48 hours after snowfall. In April, lots of Arctic fox and ptarmigan tracks. In May, Arctic fox and Arctic hare. There were no caribou tracks in 2019.

Snow Bank Height Monitoring 2019

MS: Snow bank height monitoring falls under PC 53, and this includes maintaining snow bank heights at a maximum of 1 m. During our last TEWG meeting in June 2019, SA recommended randomized snow bank height measurements. We implemented this input and it was randomized this year. It was split up in multiple sections and random points were analyzed monthly. The big thing about snow or wind events, is that they need to manage snow banks constantly. There will be large clearing areas. The figures shown indicate sampling every km, but it is not the randomized sampling points from November 2018 to April 2019 because the changes to random sampling were introduced later (i.e., starting later in 2019). Inter-annual snow bank height compliance reached 97% in 2019. These snow banks have to be managed on an ongoing basis because doing otherwise would result in operational problems, this will also support caribou crossing when regional numbers become higher.

Height of Land

MS: Height of Land surveys (HOL) are completed to monitor caribou during peak calving periods. Objectives are to observe caribou near PDA, and determine if work stoppage is required. We run this during calving season such that if we see more caribou, it may trigger more caribou monitoring. The stations are located throughout hilly areas. It takes a lot of time to get to these various sites. We have had elders support the survey methods, we have had elders train younger folks to identify caribou and we do this during key calving periods. It takes approximately 20-30 minutes to complete observations at each station. We do a full circle survey and these occur from end of May to early June. No caribou were observed during HOL observations but we saw incidental observations in 2019; mostly through Baffinland exploration folks. One sighting was during a site tour. We were trying to do at least two visits per station in 2019. It may seem like a low level of effort, but it is a focused survey during calving season. Some of the sites get accessed only by helicopter. The HOL training material was supported by MHTO in 2017. The long term trend shows a lot of zeroes since the last HOL survey-based sighting in 2013. Based on traditional knowledge, we should see caribou population levels increase over time.

2019 Mammal Summary and Future Work

MS: To summarize, no caribou, wolf or other large mammal tracks in snow were observed in 2019. We did see a wolf track in dirt thought, but not in snow. We intend on continuing snow track and HOL surveys, snow bank monitoring, and incidental observation reporting. Fecal pellets will be collected when available when caribou are observed.

SL: One thing that I wanted to bring up is that you use wildlife logs for staff working at the mine site to track when they see things along the road. We had a lengthy observation of what we saw along the Tote Road, and then what was being reported in the logs. It seems like it is a good system for flagging when you are seeing more caribou, or carnivores, wolves or other animal sightings. Is there a better way to get an increased reporting rate?

KB: These wildlife logs are posted in accommodations and targeted areas such as lunch rooms. Also in the helicopter. We also have specific wildlife sightings that get reported directly to Site Environment. There is complacency with certain species such as a fox, but anything out of the ordinary, we get contacted. For example, the January 2020 caribou sightings.
PS: I would add that logs are very powerful for tracking and including observer hours. For example, the HOL surveys may help to at least track general trends.
KB: I will clarify snow tracks. It requires us to drive very slowly along the Tote Road, and the passenger will look for tracks. We do not do surveys during certain winter months because there are not enough daylight hours, and then there is the need for fresh snow fall or windstorm events, we need that alignment to do snow track surveys.
PS. Are the surveyors both looking at the same area? If they are not talking to each other about caribou observed, then this is like a mark-recapture study.
MS: That would be great, when we have caribou.
SL: I recommend that survey effort be introduced, to get more people to use the wildlife logs.
KB: As a department, we have a wildlife log that we track. If you wrote the number of staff and number in the field. E.g., 2 foxes observed in x hours of work, that could possibly be tracked for by Site Environment.

Additional recommendations include completing independent observations in addition to current (2) observers. Track survey effort in relation to incidental wildlife sightings being recorded by Baffinland staff

<u>Helicopter Flight Height</u>
MS: Various conditions associated with the helicopter flight height. With regards to compliance and of relevance to PE who had asked about snow geese, we have restrictions specific to the molting season and track compliance. In the figures that will be included in the report, you can see the helicopter arriving to site. The Eqe Bay exploration site is being accessed mostly in June. You can also see where the snow goose area is. Some skirting of edges may occur. The compliance flights, in blue are shown separately from non-compliance flights, in red. This Project is tracking all of this helicopter activity. Other mines are not doing this level of tracking. Compliance is based on flight height and pilot's discretion. There is low-level flight rationale that is being recorded by pilot and if no rationale is provided, it would be noted as non-compliant. After incorporating pilot's rationale, most low level flights are compliant. There are many reasons for low level flights. It is unknown whether these low-level flight resulted in disturbance to birds or other animals. Pilots will adapt their altitude if they see there is a need to do so.
SA: Can you provide a figure that shows annual/monthly number of flights over the last 6-7 years in your 2019 report? For example, back to slide 119. For those flights below 650 m, what was the reason for those? Regarding NIRB recommendation to Baffinland. NIRB had requested that you provided the rationale for any low level flight. I want to confirm that this is coming in the report. Not only the percent of low level, but the justification. And also the year to year changes. I thought they were asking for an appendix with a rationale for every flight.
MS: We do develop a long list but it is a long list. You would want all of entries?
KB: There are other categories such as water sampling. We could list program requirements for every flight.
SA: I was not suggesting we get a complete record from all flights. I would just like to see a figure summarizing number of flights over the years.
KB: We had 2 helicopters, and had lots of programs associated with Phase 2, and Bruce Head.

PS. We are interested in altitudinal exposure. For me, seeing 93% compliance, I am not worried at the percent of compliance, but how many low level flights are actually occurring. We should see number over time being tracked over time to assess wildlife disturbance and the resulting effects to wildlife?
SL: To track the actual number of flights below the 650 m over time, would be a better way to figure out if there is a threshold of impact being realized. So a combination of what SA and PS are saying would be really interesting. I think the other issue we had last year again is not with high compliance, but what does this mean for wildlife exposure? Are there any changes that can be made below that level? Or do you think you can do anything to minimize this? Or if you start seeing caribou around, what can we do?
KB: There is no way to reduce the low level flights because of all of the monitoring programs that are being completed daily.
SA: Based on this discussion, there are a number of things to be added **(ACTION)**:
1. Reporting total number of helicopter flights per year
2. Total number of flights below altitude thresholds
3. Show a version of those maps with where low level flights are occurring. And possibly then reporting on why they are low level. What is causing some of these low level flights? Can any mitigation be introduced? If some of the monitoring constitutes those low level flights, perhaps we should start considering that the level of environmental monitoring for the Project has an impact.
4. Total hours below altitude thresholds.
5. Location of compliance in relation to caribou calving areas.
PS: Is there a number that should be lower than the suggested threshold? Asking pilots to ask flying over 650 m may not make sense.
MS: We have the heights that the low level flights are at. We could look at it. Every time we show something we are asked for something more. This group knows how helicopters fly.
JH: Do we know the disturbance flight height and the potential altitude?
MS: Yes, the 600 and 300 m comes from other studies. Is it achievable? We recognize it is an issue, are we disturbing wildlife? Can we get beyond this since we know it is an ongoing issue? In summary, most level flights were justified due to safety or due to program and operational requirements. Most long-distance flights met elevation requirements. We will continue to inform pilots. It is part of the contract.
KB: We also hold an onboarding session with the pilots that we use to advise the flight height commitments.

<u>2019 Terrestrial Monitoring Summary</u>
MS: To summarize, we are pursuing multiple programs. Arctic Raptors will also be working towards a publication. Dustfall is limited within 1 km of PDA. Variation in vegetation abundance is likely not a Project-related effect. Natural revegetation is occurring. A partner program is the reclamation program. No caribou but we are getting incidental observations. We are suggesting to take a pause with vegetation abundance. We can discuss further at a later date.
MS: PS you had indicated possibly missing green-up, so this is something we are adding to the program. We are recommending to pause the abundance sampling.
COD: If you are doing remote sensing analysis, then you could combine the data correlation with dust deposition.
PS: Is this something you have capacity for internally? We have folks within ECCC that have this capacity.
MS: We are not looking at amount of dust and rate of snowmelt. We are focusing on what we need right now.
MS: We are also developing a noise monitoring program in 2020 to address PC No. 14.
PS: We have an expert within our department that can quantify noise, natural and anthropogenic noises.

*****ACTIONS*****

3. **ECCC** (PS) to share with MEWG slide deck describing update of red knot detection monitoring study completed in summer 2019 in collaboration with Baffinland.
4. **EDI/Baffinland** to consider presenting dustfall data in a way that better facilitates comparison among sites (e.g., use of log scales for y-axis).
5. **EDI/Baffinland** to further explore with support of biostatistician the type of statistical models available to assess potential Project effects on vegetation (e.g., parametric versus non-parametric) and incorporation of moisture category into modelling. Further consideration of additional types of visual or statistical comparisons to better integrate dustfall exposure with vegetation results (e.g., variable that expresses extent of dustfall as an alternate to distance in the vegetation cover analyses).
6. **Baffinland** to provide follow-up on concern from MHTO on asbestos.
7. **NRCAN** to follow up with their dustfall expert with regards to the appropriateness of installing dustfall samplers at 1 m (non-standardized method) versus 2 m (approved standardized across jurisdictions).
8. **Baffinland** to consider installing dustfall samplers at an alternative height (e.g., 0.5 m or 1 m) for a subset of locations once TEWG members provide scientific support (weight of evidence) for doing so.
9. **EDI/Baffinland** to consider as part of 2019 reporting the total number of helicopter flights per year, the number of low level flights occurring over time (whether compliant or not), whether there is avoidance of the snow goose area, and any improvements over time, in addition to providing a summary on the reasoning for each low-level flight (e.g., specific to monitoring programs).

*****MOTIONS AND/OR RECOMMENDATIONS*****

Roundtable and Action Items - No formal motions or recommendations were put forward by any TEWG member. Refer to Table 1 for actions tracker.

Close-out Comments and Next Steps

LK: In conclusion, we have things to consider as we move forward with our next year's proposal. If you want to make sure that we incorporate actions, please send your comments on draft meeting minutes. With regards to the ToR discussion, please provide comments back on what was circulated in October 15, and including what was incorporated by them. We will then be looking for comments by April 3. We will then look forward to flushing that out.

EI: I want to put in on the record. Coming from harvesters in Pond Inlet and dustfall. When we are trying to go hunting in the area of Mary River, before we get to Bruce Head. Right now we have to get ice in order to have water for travel or to cook. The area we go through has dust. I do not know if monitoring will help at all. We saw a lot of charts earlier today. Traveling through that area is very different. Our snowmobiles and clothes get dusty. I want to recommend immediate adaptive management. That is what I want to recommend.

LK: Where is the route you are referring to, and then we can try to relate our ongoing mitigation and get back to you?

EI: It reaches up to Bruce Head and from there, it goes all the way to Mary River. You cannot use snow to cook. Earlier this year, this was also reported by hunters.

EM: This is consistent with what we have heard before and specifically with concerns for preparing tea, and for drinking. Our approach was to look at the snow imagery, and that is the take home for us to look at this further and see what we can do with regards to mitigation. That is noted and appreciate you sharing this.
EI: Looking at all the charts today, I do not know if people realize the reality.
EM: The only thing to add is that you should expect to see terrestrial report draft by the end of March. I sent out meeting minutes from previous meetings, please provide comments back on what we sent out for review as we are including this in our annual report.
LK: We will follow up with email. Thank you for coming today.

Baffinland will provide date and location at a later time for the next TEWG in-person meeting. **(ACTION)**

No additional questions from, TEWG participants Meeting is adjourned at 5pm.

*****ACTIONS*****

10. **Baffinland** to further consider concerns raised by MHTO regarding extent of red dust on snow during the winter.
11. **Baffinland** to schedule next TEWG in-person meeting prior to start of 2020 field season.

Tables that follow provide summary of i) action items from current, ii) status update on action items from previous October 7, 2019, (iii) June 20, 2019, and iv) April 24, 2019 meetings.

Table 1. Summary of action items from February 26, 2020 TEWG Meeting:

#	Action	Action By	Status Update
1	**GN** to distribute to TEWG members the latest draft of ToR showing track changes.	GN/All	In progress. GN distributed latest draft version to MEWG members for comment on March 9, 2020. Specific period over which comments will be received was not specified by GN.
5	**Baffinland** to provide follow-up on concern from MHTO on asbestos.	Baffinland	Not yet started.
6	**NRCAN** to follow up with their dustfall expert with regards to the appropriateness of installing dustfall samplers at 1 m (non-standardized method) versus 2 m (approved standardized across jurisdictions).	NRCAN	In progress. Initial call to discuss options with NRCan held in June 2020 to assess feasibility of using satellite imagery to assess extent of dustfall. Updates will be provided following further engagement.
7	**Baffinland** to consider installing dustfall samplers at an alternative height (e.g., 0.5 m or 1 m) for a subset of locations once TEWG members provide scientific support (weight of evidence) for doing so.	Baffinland	Not yet started. Action requires additional information for consideration by Baffinland before proceeding.
8	**EDI/Baffinland** to consider reporting additional details regarding no. helicopter flights per year, no. low	EDI/Baffinland	In progress. Baffinland will provide an update on additional analysis on helicopter overflight data during the June 24 2020 TEWG meeting.

	level flights and associated compliance including reasoning.		
9	**Baffinland** to further consider concerns raised by MHTO regarding extent of red dust on snow during the winter.	Baffinland	In progress. Initial call to discuss options with NRCan held in June 2020 to assess feasibility of using satellite imagery to assess extent of dustfall. Updates will be provided following further engagement.
10	**Baffinland** to schedule next TEWG in-person meeting prior to start of 2020 field season.	Baffinland	Completed. In-person meeting was replaced by teleconference format and set for June 24 2020.

Table 2. Summary of action items from June 20, 2019 TEWG Meeting:

#	Action	Action By	Status Update
3	Baffinland to include a section in future monitoring reports on the "Use of Community Input and IQ (or Inuit Perspectives) in the monitoring program.	Baffinland	In progress. Baffinland will summarize information available for each program in subsequent reports.
4	Baffinland may consider completing fox den surveys as part of the Arctic Raptor monitoring program for 2019.	Baffinland	Not completed. Terrestrial program was already expanded in 2019 to include avian distance surveys, raptor productivity and occupancy, winter nest counts and small mammal trapping for rough legged hawk survey. Could be further discussed with TEWG as part of 2020 program design.
6	EDI to discuss with NRCan other dustfall monitoring programs occurring in the region and use of alternative tools for conducting dustfall sampling.	EDI/Baffinland	In progress. Initial call to discuss options with NRCan held in June 2020. Updates will be provided following further engagement.
9	BIM Site Environment team to revise hunter/site access protocol to ask hunters who come to site if they are amenable to participate in mapping caribou migration routes and travel paths to develop a more comprehensive database of this information.	Baffinland	In progress. Updates to the protocol are currently being made by Baffinland.

Table 4. Summary of action items update from April 24, 2019 TEWG Meeting

	Outstanding Action Item from April 2019 TEWG Meeting	Action By	Update
1	GN to provide a copy of summary report on caribou composition surveys throughout Baffinland Island	GN	No update. GN to provide update during their review of meeting minutes and accordingly change status.

	from 2015 to 2018 at the request of QIA.		

Baffinland

Name: Susan Leech, D. Bruce Stewart, Jeff W. Higdon

Agency / Organization: Qikiqtani Inuit Association

Date of Comment Submission: 30 April 2020

#	Document Name	Section Reference	Comment	Baffinland Response
1	February 26, 2020 TEWG Meeting Minutes_DRAFT for MEWG.pdf	Participants, p. 2 of 20	Add (SL) after Susan Leech.	Edit complete.
	February 26, 2020 TEWG Meeting Minutes_DRAFT for MEWG.pdf	2019 Production Overview, p. 2	RE: line 1. Remove the million after 5,861,277 or this looks like a lot!	Edit complete.
	February 26, 2020 TEWG Meeting Minutes_DRAFT for MEWG.pdf	Response to 2018-2019 NIRB Recommendations, p. 2	RE: 3rd line from the bottom: "SA: Can we be provided a copy of the study design?" This should be included as an action item. I would prefer to see all of the action items upfront in this document. This is an important one to include (methods review) -- and it should	The study design is pending and as described in meeting minutes will be distributed once finalized. Also noting high level details of the program were provided in Baffinland's response to Board recommendations in 2019. Comments re: format of meeting minutes noted. Will consider further.

#	Document Name	Section Reference	Comment	Baffinland Response
			be done before the program is implemented. Recommend organizing action items by monitoring program and tracking recommendations for improvements / changes to monitoring program in a table. This would be useful for reporting out to NIRB and would make sure that we vote on suggested improvements.	
	February 26, 2020 TEWG Meeting Minutes_DRAFT for MEWG.pdf	Response to 2018-2019 NIRB Recommendations, p. 3, line 5ff	"SA: The spatial component of where caribou are harvested will be important. I also wonder whether it will be important to sample rumen as well, because it will give you a sense of what caribou have eaten in the past 24 hours or so." How is this recommendation being followed up on?	Funding for this program has not yet been confirmed. Until a path forward with GN, the NCP and the MHTO is finalized, no update on TEWG input into the program will be available. Also noting that this comment is coming from the GN. It is Baffinland's intention to have GN as a partner in this program. The GN is therefore encouraged to communicate internally to confirm program priorities.
	February 26, 2020 TEWG Meeting Minutes_DRAFT for MEWG.pdf	Actions, p. 3	Replace MEWG with TEWG.	Edit complete.

#	Document Name	Section Reference	Comment	Baffinland Response
	February 26, 2020 TEWG Meeting Minutes_DRAFT for MEWG.pdf	Red Knot Monitoring, p. 4	Please report status of this monitoring for 2020 (i.e., will the monitoring continue? If not, why not?)	Per PS presentation (see discussion on page 5), it is the opinion of ECCC that a significant effort by BIM has already been undertaken to determine there were no red knots in the area and that additional monitoring is therefore not required.
	February 26, 2020 TEWG Meeting Minutes_DRAFT for MEWG.pdf	Pre-clearing Active Migratory Bird Nest Surveys, p. 4	Suggestion was made to include training for people doing this nest clearing on the key birds of concern (could just be a short list with photos). Where do recommended changes to monitoring programs get captured?	Training of Site Environment staff by a qualified biologist (EDI program lead) has been occurring annually for several years now. This recommendation has therefore already been addressed.
	February 26, 2020 TEWG Meeting Minutes_DRAFT for MEWG.pdf	ECCC and Baffinland Collaboration on Red Knot, p. 6	RE: possible use of NSERC funding to investigate additional research questions (PS) and the TEWG identifying priorities (SL). Should be an action item identified here. The suggestion was to submit ideas or a framework for potential questions that could be directed with this research funding. We may have missed the boat on it because there is no follow up on action items. Request to ask ECCC if TEWG can still provide input given that the 2020 research may be postponed, giving TEWG time to identify priorities.	Baffinland and ECCC remain open to suggestions from the TEWG to make use of funding.

#	Document Name	Section Reference	Comment	Baffinland Response
	February 26, 2020 TEWG Meeting Minutes_DRAFT for MEWG.pdf	Dustfall Magnitude and Extent, p. 7	Suggest clarifying that “dm” stands for decimeter (i.e., 0.01 sq. m), given that it was described verbally as decameter (i.e., dam = 100 sq m).	Edit complete.
	February 26, 2020 TEWG Meeting Minutes_DRAFT for MEWG.pdf	Dustfall Magnitude and Extent, p. 8	RE: “BS: You should consider presenting data with both log data so the differences along the y-axis are clear.” This lost a lot in translation. The message was that: Inconsistent y-axis scales on the figures are obscuring data differences among the mine, port, and tote road sites by preventing direct comparisons (e.g., Master presentation slide 34 of 127). This problem was identified in comments on the 2018 Terrestrial Environment Monitoring Report. Where figures are provided for comparison the y-scales should be consistent to facilitate comparisons.	Text updates to reflect message provided by QIA.
	February 26, 2020 TEWG Meeting Minutes_DRAFT for MEWG.pdf	Dustfall Magnitude and Extent, p. 8	RE: Inquiry by SA whether BIMC has “given any thought to baseline monitoring for dustfall along the railway." This monitoring should be considered for 2020 to ensure several years of baseline data are available for comparison should Phase 2 be approved. Recommend further discussion by the TEWG.	Baffinland is planning to deploy additional dustfall collectors along the ‘dogleg’ of proposed rail alignment to collect baseline during summer 2020.

#	Document Name	Section Reference	Comment	Baffinland Response
	February 26, 2020 TEWG Meeting Minutes_DRAFT for MEWG.pdf	Dustfall Magnitude and Extent, p. 8	RE: "LD: As we look at reshaping additional dust fall monitors at Milne Port…) Please clarify what is meant by "reshaping".	Edited to say "where to deploy". Reshaping was meant to infer reassessment of location of additional dustfall collectors.
	February 26, 2020 TEWG Meeting Minutes_DRAFT for MEWG.pdf	Vegetation Abundance, p. 10	RE: ACTION at end of section: Make sure there is an action item identified to look at how these programs (vegetation abundance, contaminant analyses and dustfall monitoring programs) are being redesigned to address the issues raised here: * Moisture levels higher in reference plots than in veg monitoring plots near Tote road. * Dustfall levels vary considerably by location along the Tote road. Need to make sure we have dustfall data at vegetation monitoring locations. Recommended changes should be made in 2020 so we are clear how they will be addressed moving forward. Would rather see this monitoring continue in 2020, as there are clearly issues to be resolved with the data collection.	Re: 1st recommendation: Vegetation abundance monitoring will not occur in 2020. This recommendation can be considered when vegetation abundance monitoring is reinitiated in future years. Re: 2nd recommendation: This is being addressed through pairing of vegetation monitoring sites with dustfall collection sites and new analyses to investigate trace metals relative to dustfall at paired sites

#	Document Name	Section Reference	Comment	Baffinland Response
	February 26, 2020 TEWG Meeting Minutes_DRAFT for MEWG.pdf	Results - Metals in Lichen, p. 11	Change line 2 from "…in metals of lichen…" to "increases in metals in lichen…".	Edit complete.
	February 26, 2020 TEWG Meeting Minutes_DRAFT for MEWG.pdf	Results - Metals in Lichen, p. 11	PS recommended including mercury and iron in the metals monitoring program. It is not clear how specific recommendations for each program are tracked and voted upon by the group. Suggest a tracking table is needed (in addition to or instead of a laundry list of action items).	Edit complete.
	February 26, 2020 TEWG Meeting Minutes_DRAFT for MEWG.pdf	Exotic Invasive Vegetation, p. 12	RE: ECCC not supporting installation of dustfall samplers at 1 m height: This does not accurately reflect the ECCC comment, see page 8, "PS: ECCC's position on another mine site was to use the standardized approach (i.e., setting dust samplers at 2 m) and not a non-standardized method (i.e., 1 m; though ECCC did not explicitly indicate that both could not be done). The message here is not don't monitor at 1 m, rather that we also need to maintain the 2 m monitoring. But doing both is totally fine.	No edit made. The text which states "though ECCC did not explicitly indicate that both could not be done" already captures that they did not express any disagreement with having dustfall samplers at both heights.

#	Document Name	Section Reference	Comment	Baffinland Response
	February 26, 2020 TEWG Meeting Minutes_DRAFT for MEWG.pdf	Exotic Invasive Vegetation, p. 12	RE: effects of project generated dust and sediment on freshwater biota along tote road: "LK: This is something that has been flagged through our Phase 2 so we are looking into this further." This is an ongoing monitoring gap related to the ERP and Production Increase. Why delay "looking into it further" until after Phase 2 has been assessed? How is Baffinland "looking into it further"?	No edit made. The meeting minutes are intended to summarize what was presented at the meeting. Recommended QIA and Baffinland speak further to address concerns raised by BS outside of TEWG meetings. Freshwater monitoring is not a focus of this working group.
	February 26, 2020 TEWG Meeting Minutes_DRAFT for MEWG.pdf	2019 Mammal Summary and Future Work, p. 13	There were specific recommendations to improve the HOL surveys (independent observations from two observers) and the wildlife logs (tracking survey effort) that are not captured here.	Edit complete.
	February 26, 2020 TEWG Meeting Minutes_DRAFT for MEWG.pdf	Helicopter Fight Height, p. 14	RE: Actions (bottom of page): Need to add in here the total hours below altitude thresholds; also the location of compliance in relation to caribou calving areas and/or other sensitive locations.	Edit complete.

#	Document Name	Section Reference	Comment	Baffinland Response
	February 26, 2020 TEWG Meeting Minutes_DRAFT for MEWG.pdf	2019 Terrestrial Monitoring Summary, p. 15	This summary is problematic as it seems to show that there are no issues with any of these programs. Dustfall in particular and the relationship between dustfall and vegetation -- and issues with the vegetation reference sites -- are not reflected here. The statement "dustfall is limited within 1 km of the PDA" does not reflect what Inuit are saying. Rewrite to say that monitoring programs currently are not finding...x y and z, rather than writing them as definitive statements. It is very misleading.	The meeting minutes are intended to summarize what was presented at the meeting.
	February 26, 2020 TEWG Meeting Minutes_DRAFT for MEWG.pdf	Table 1. Summary of action items from February 26, 2020 TEWG Meeting, #7, p. 18	**RE: "Baffinland** to consider installing dustfall samplers at an alternative height (e.g., 0.5 m or 1 m) for a subset of locations once TEWG members provide scientific support (weight of evidence) for doing so."	Unclear what edit is being requested. No changes made.
	February 26, 2020 TEWG Meeting Minutes_DRAFT for MEWG.pdf	Table 1. Summary of action items from February 26, 2020 TEWG Meeting, #8, p. 18	This action item may not be complete, pending TEWG review of the monitoring report. The request included tracking the number of hours below the threshold flight level. Also, for clarity replace "no." with "number" in two locations.	Switched action item to in progress. Details regarding additional analysis on helicopter overflight data will be provided for during the June 24 2020 TEWG meeting.

#	Document Name	Section Reference	Comment	Baffinland Response
	February 26, 2020 TEWG Meeting Minutes_DRAFT for MEWG.pdf	Table 1. Summary of action items from February 26, 2020 TEWG Meeting, #8, p. 18	Action Item 8 does not capture the recommendation from SA (pg. 15, bullet 3) that the locations of low-level flights be mapped. This is important information for assessing potential impacts. Maps that show showing seasonal hotspots of low-level flight activity could be particularly useful over the longterm.	Switched action item to in progress. Details regarding additional analysis on helicopter overflight data will be provided for during the June 24 2020 TEWG meeting.
	February 26, 2020 TEWG Meeting Minutes_DRAFT for MEWG.pdf	Table 3. Summary of action items from June 20, 2019 TEWG Meeting, #7, p. 19	Could remove this action item but need to include a new action item to share the methods with the TEWG for technical review.	Edit complete.

ᓄᓇᓕ ᐊᕐᕌᒍᓕ ᑲᑎᒪᔨᖏᑦ ᑭᓱᓕᕆᓂᖅᓴᓂ ᑲᑎᒪᓗᐊᖅᓯᒪᔪᓕᒃ

ᐅᓪᓗᖓ: ᐃᓕᖅᐸᐊᓗ 26, 2020
9:00 ᐅᓪᓚᑲᑦ – 5:00 ᐅᓐᓄᑲᑦ (ᖃᑭᖅᑕᔭᕐᔪ ᐅᐊᓯᔪᐊᒍᑦ)
ᓄᓇ: Lord Elgin Hotel - 100 Elgin St, Ottawa, ON
Call-In Number: +1-416-814-2855 **Meeting ID**: 064701805

ᑲᑎᒪᔨᐅᕐᓂ ᑎᒥᐅᖓᓐᓂᐊᓕ	ᐃᓚᐅᕐᓴᑦ		ᑲᑎᒪᔨᐅᕐᓂ ᑎᒥᐅᖓᓐᓂᐊᓕ	ᐃᓚᐅᕐᓴᑦ	
ᓴᖅᑭᓚᓐᓄᑦ ᓴᖅᓯᐊᕐᑲᓂᕐᒥᓄᑦ ᐅᓴᖏᓐᓄᐊᕐᓇᖅᑐᑦ ᑯᐊᐳᕆᓴᓐᓂᑦ (ᓴᖅᑭᓚᓐᓄᑦ)	ᓄ ᑲᒧᒪᓕᖅᓴ (ᓄᑲ)	Δ	ᖃᑭᖅᑕᓂ ᐃᓄᐃᑦ ᑲᑎᒪᔨᐅᕐᓂᐊᓕᖅᑐᑦ (ᖃᑭᖅᑕᓂᑯᑦ) ᖃᐅᔨᓴᕐᓂᕐᒥᓄᑦ	ᔨᐊᖅ ᕼᐃᓴᑦᓚᐅ (ᔨᕼ)	Δ
				ᓴᓕᐊᑦ ᐊᑕᐅᕼᐊᖅ (ᓴᐊ)	Δc
	ᔨᓂᕕᖅ ᒧᐊᓕᐅᕕᑦ (ᔨᒧ)	Δ		ᓄᑲᓴ ᓴᑐᕋᑦ (ᓄᓴᑐ)	Δ
				ᓇᓱᐅ ᓄᓐ, (ᓇᓄᓐ)	Δ
	ᐃᐊᒪ ᒪᑦᑲᒪ (ᐃᒪ))	Δ	ᓄᓕᑭᐊᖃᓇᓱᖅ ᑎᑎ	ᐃᓕᐅᕐᓴᑦ	
	ᑭᐊᐅᑐᕋ ᐸᑕᐅ (ᑭᐸ)	Δ	ᑲᓇᑎᑦ ᐅᑭᐅᖃᑕᖅᑐᓂ ᐱᓕᓕᓪᓗᓄᑦ ᐱᑲᖃᓴᐃᓕᑦᑐᓴᓂᑦ	ᐊᑭᓴ ᓴᓇ (ᐊᓴ)	Δ
				ᐊᑎᓚᐊᓅ ᐸᕎᑎ (ᐊᐸ)	Δc
			ᓄᓇᓕᑦ ᐊᑐᑲᓴᐃᓕᑦᑐᓴᓂᑦ ᑲᓇᑎᑦ	ᑲᒥᐅᑦ ᑭᐃᓕᑦᑕᓕᐊᑦ (ᑲᐃ)	Δ
			ᑭᓇᐅᕐᓂᖅᓯᒪᔪᓕᒃ ᑎᑎ	ᑭᓇᐅᕐᓴᑦ	
	ᐸᓄᐃᑕ ᐃᓄᐊᕎᖅᓴᒃ (ᐸᐃ)	Δ	ᓄᓇᕗᑦ ᐊᑐᖅᑕᕐᓂᐊᓕ ᑲᓇᑎᑦ	ᐊᑕᓴ ᓴᓇ (ᐊᓴ)	Δ
				ᐊᑎᓚᐊᓅ ᐸᕎᑎ (ᐊᐸ)	Δc
ᒥᑦᑎᒪᑕᓐᓗᒥ ᐊᓐᔪᓄᓕᕐᓂᐊᓚᓄᑦ ᒥᑭᑦᐊᔭᕐᓂᐊᓐᓄᑦᑐᑦ ᑲᑎᒪᔨᖏᑦᑐᓴᓂᑦ (ᐊᓐᔪᓄᓕᕐᓂᐊᓚᓄᑦ)	ᐸᓄᐃᑕ ᐃᓄᐊᕎᖅᓴᒃ (ᐸᐃ)	Δ	ᓄᓇᑦᑐᒥ ᐊᑐᑎᑦᑕᓕᐊᑦ ᑲᑎᒪᔨᖏᑦ (ᐊᑐᑎᑦᑕᓕᐊᑦ)	ᑯᐊᓪ ᐸᑯ (ᑯ ᐸ)	Δc
	ᐊᒻᒪᑕ ᕼᐊᓇᓴᓐ ᒪᐃᓐ (ᐊᕼᒪ)	C		ᓴᓕᒪᓐ ᐊᒧᓄ (ᓴᐊ1)	Δc
ᐊᐅᑎᓕᓚᓐᓂᑦ ᓭᓕᐅᑦᓗ ᐊᓯᔨᓴᖅᑐᓕᓕᓚᓐᓂᖅᑐᑦ ᑲᓇᑕᒥ	ᓴᐃ ᐃᐊ ᑐᐅᐊ (ᓴᑐ)	Δ c	ᐸᓄᓇᓕᒪᓐᓄᑦ ᕿᐃᓐᓴᖅᑐᑦ	ᐃᓕᐅᕐᓴᑦ	
	ᐸᑦ ᓴᒥᑦ (ᐸ ᓴ)	Δ	ᐃᓐᓄᐅᒪᓐᑐᑦ ᑕᐃᓇᒥᔭᓴ ᐃᓐᓴᓗ	ᒪᐃᔭ ᓭᐊᑐᓚᓐᑕᓐ (ᒪᓭ)	Δ
				ᑕᓐᓭ ᑐᑭᓭᑦ (ᑕᑐ)	Δ
ᓄᓇᐅᔭᕆᑦ ᒪᐅᒪᓚᑦ ᖃᑲᐅᔨᓴᕐᓂᑦᑐᓴᓂᑦ	ᐅᖏᓐᑕᓐ ᕿᐅᐊᖅᓴᑦ (ᐅᓪ)	Δ		ᐅᓚᐊᑦ ᐸᑲᓴᑦ (ᐅᐸ)	Δ
	ᔨᓐ ᓚᓐᔭᓴ (ᔨᓚ)	Δ c			
	ᐃᓪᑕᓪ ᐅᔪᕋᐃᑎ (ᐃᓄᐅ)	Δ			
	ᓴᑎᐅᓐ ᐊᑦᑭᓐᓴᓐ (ᓴᐊ)	Δ			

C-ᑕᑕᔭᕆᑦ ᐃᑕᐅᕐᓴᖅ, Δ – ᐃᑕᐅᕐᓴᖅ, Δc- ᐃᑕᐅᓐᑎᑐᑐᖅ

ᐅᖃᖅᐅᓂᒃᖃᓐᓂᑐᑦ ᑲᑎᒪᔨᖏᑦᑕ ᐊᓂᔨᑭᓐᓇᖅᑐᓄᑦ ᑲᑎᒪᓗᐊᖅᓯᒪᔪᓄᑦ

ᐅᖃᖅᑎᑕᖅᓯᒪᓂ ᐅᖃᖅᑕᐅᔪᓐᓇ
ᐊᓯᖏᓪᓗᒍᓂ ᑐᓴᒃᑲᓂ
*ᐊᓯᖏᓪᓗᒍᓂ (ᑕᐅᒃ) ᑐᙵᓱᓴᐃᔾᓂ ᐃᓕᐅᔪᓕᒫᓂᒃ ᐃᓕᑎᕆᐅᔪᓂ ᐅᓪᓗᓂᒃ ᑐᓴᒃᑲᓂᓗᓂᓪᓕ ᑎᒥᓂ, ᐊᓯᑦᓯᓇᖅᑕᐃᓕᓂᓪᓕ ᑐᓴᒃᑲᓂᓗᓂᓪᓕ ᓄᓇᓕᖏᓐᓂᒃ ᐊᐅᓚᑦᓯᓂᓪᓕ ᐊᐅᓚᑦᓯᓂᓪᓕ ᐅᐅᓂᖅᓯᓂᓪᓕ ᐊᐅᓪᓚᓯᖅᓯᓂᓪᓕ ᐊᐅᓪᓚᑦᓯᓂᓪᓕ ᐊᐅᓪᓚᑦᓯᓂᓪᓕ ᐊᐅᓪᓚᑦ

(ᓄᓇᓗ ᓄᓇᕗᒻᒥᓂ ᓴᖅᓯᖏᓂ ᐊᖏᔪᓕᕐᓗᑎᒃᓴᒥᓂᓗ) ᖃᐅᔨᓴᖅᓂᖅᓄᑦ. ᐃᓕᓴᕐᓂᐊᖅᐸᑲᓂ ᐊᓕᖅᑎᑦ ᐱᒃᑲᖃᖅᑎᑕᖅᑐᑦ ᓴ: ᓇᓕᑦ ᑐᐃᑎᑕᐅᔪᑦ ᐱᖅᔪᐊᖏᓂᐊᖅᑐᖅ. ᐃᓕᓴᕐᕕᖏᓂᑕᐅᖅ ᐱᖅᔪᐊᖏᑦᓴᖏᓂ ᖃᐅᔨᓴᖅᓄᑦᓂᑦ ᓂᕈᐯᒃᖅᑎᑦ, ᑐᕈᓕᐅᑎᔪᓐᓇᖅᓂᐊᖅᓂᔨᐅᒃ ᕈᓕᓂ ᑐᐃᑦ 24 ᐃᒃᑯᖅᐅᓪᓚᐅᖅᑐᓇᓂ ᐅᖏᒋᓇᓪᓗᓐᓂᓪᓂᑦ

ᓇᓇᓂ ᐊᐅᑎᓂ ᑲᑎᒪᓕᕆᓪᒋᑦ ᐊᐅᓪᓚᕆᓕᖅᑎᓪᓚᖅ

ᓗᑲᑦ : ᐸᐅᓪᓪᒋᓂ ᑐᓂᓯᓪᓚᖅᓯᒪᔭᖅᑎᒃ ᓇᒋᑕᐅᓚᖅᓯᒪᔭᖅᑎᒃ ᐊᐅᓪᓚᕆᓕᓂᒃ ᐅᑐᐱᒻ 15, 2019ᒥ ᐃᓪᓕᓐᓄᓂᐅᒃ ᑭᐅᔭᕐᑎᓐᓇᓂ ᑭᖑᓪᓕᖅᐸᒃᓴᓪᓕ ᑎᑎᕋᑎᔪᓂ ᑐᑭᓯᓂᐅᔪᓂ ᐱᓪᓚᓂᐅᑦ ᒪᕐᕉᓕᓇᓂ ᐅᑐᐱᒻ ᐊᐅᑎᓂ ᑲᑎᒪᓕᕆᓪᒋᑦ ᑲᑎᒪᓂᓐᓄᓐᓂ ᓄᓇᓕᖕᒥ ᐃᓪᓕᓐᓄᓂᐅᒃ ᐱᓪᓚᓂᐅᑦ ᐸᐅᓪᓚᕆᓕᓂᒃ ᐃᓪᓕᓐᓄᓂᐅᒃ ᐊᐅᓪᓚᕆᓕᓂᒃ ᑲᑎᒪᓂᓐᓄᓐᓂ

ᑎᓐᓕᐊᓂᒃ ᖃᐅᔨᓴᖅᓯᓪᓗᓂ

ᑲᔪᖅᓯᓐᓂᒃ ᖃᐅᔨᓴᖅᓂᖅᖃᖅ

ᒪᓕ: ᐊᐅᓐᓯᓐᓇᑦ ᐃᑲᔪᖅᓯᐅᕐᖅᓴᓪᓕ ᐊᐃᒃᓕᒪᔪᓂ ᑲᔪᖅᓯᓐᓂᒃ ᖃᐅᔨᓴᖅᓂᖅᓄᓪᓕ ᐊᐅᑎᓕᓚᓱᓪᓕ ᓕᓕᑦᓯᐊᓂᒃ ᐊᓗᓕᖅᑐᓂᖅᓯᓚᑦᑐᓂᒃᑐᓄᑦ ᑲᑕᒪᑲᑦ 2019ᒥ. ᐱᓪᓚᓕᕆᖃᖅᓯᒪᓂ ᐊᐅᑎᓕᓚᓱᓪᓕ ᐱᓕᕆᓂᖅᓯᒪᓂ ᐃᓕᓴᐅᕙᓪᓚᑦ 005ᒥ ᐊᑐᓚᐊᓕᓪᓂᒃ ᒪᓕᑎᐊᓕᓪᓂᓪᓗᑐ ᐊᐅᓕᕆᑎᓂᑦ ᑲᔪᖅᓯᓐᓂᒃ ᐅᒪᔪᑦ ᐅᑐᓚᐊᓇᖅᑐᒋᑕᑐᓄᑦ: 67, 73 74ᑐ. ᑕᒃᑯᐊ ᐊᑐᑎᖅᑲᓇᖅᓴᓂᑦ ᓄᑕᓂᒃ ᓇᓂᓕᖅᓯᓪᓗᑎᒃ ᐅᒪᔪᓂᒃ ᐅᑐᓚᐊᓇᖅᑐᒋᑕᑐᓄᒃ ᐱᓕᓚᓂᐅᔪᓂᒃ ᐊᐅᓕᓂᓕᒫᓄᓂ. ᑕᒃᑯᐊ ᐱᓕᓚᓂᑦ ᓴᓇᔪᒪᓂᑦ ᑕᕐᑯᑐᓄ ᖃᐅᔨᓴᖅᓂᖅᓂᖅᑎᑐᓂ. ᒪᖁᑭᖓᓕᒫᒃ ᑎᓐᓕᐊᖅᓂᑎᑦᑎᓂᑦ ᑲᔪᖅᓯᓂ ᖃᑭᖅᑕᐃᓐᖓᒥ, ᐊᐃᑦᑦᓴᖓ ᐅᑐᓚᐊᓇᖅᑐᒋᑦᓴᑐᓄ ᐊᐃᑦᑦᓴᖓ ᓇᑐᓇᐃᖅᑕᐅᔪᓕᒥᑐᑐᓄ ᐱᔪᒻᒧᑕᐅᓴᓇᖅᑐᑐᓂ. ᐊᐅᓐᓯᓐᓇᑦ ᐃᑲᔪᖅᓯᐅᕐᖅᓴᓪᓕ ᐊᐅᔨᓴᖅᑕᐅᓂᖅᓴᓂᒃ ᑲᔪᖅᓯᓐᓂᒃ ᑐᓴᐅᔪᓂᒃ 2019ᒥ ᓇᑐᓇᐃᓴᑦᑎᓪᓗᐊᔪ ᐱᑕᖅᑭᒪᖓᓂ ᐊᖏᖅᑕᖅᓯᒪᓂ ᑲᖏᖅᓯᖓᓂ ᑐᓴᐅᔪᓂᒃ ᐱᑕᖅᑐᓚᐅᖅᑐᓂ ᐃᓕᓴᐅᕙᓪᓚᑦ.

ᐱᑎᐊᓕᐅᖏᓐᓂᑎᑦᑐᓂ ᐃᓚᐅᔪᓂᒃ ᓄᓕᒃᑎᓂᓕᒃ ᑎᓐᓕᐊᓕᓂ ᐃᓚᖏᐊᓕᐅᖏᓐᓂᑎᑦᑐᓂ ᖃᐅᔨᓴᖅᓂᖅᓂᒃ

ᒪᓕ: ᐊᐅᓐᓯᓐᓇᑦ ᖃᐅᔨᓴᖅᑲᓂᑕᑎᒋᔪᑦ ᐋᑎᐊᓕᐅᖏᓐᓂᒃᑎᑦᑎᓂᑦ ᐱᑕᖅᖏᐃᐅᔪᒥ ᐊᐅᔪᓕᒫᓐᓇᖅ. ᑕᐃᒪᐃᓕᐅᕐᖅᓴᓪᓕ ᒪᓕᒃᓄᓕᒥ ᐱᓕᕆᓂᖅᓯᒪᓂ ᒪᓕᑎᐊᓕᓂ 66 70ᑐ. ᐃᓕᖏᐃᑦ ᓇᓂᔪᐅᔨᑎᒃ, ᐱᔪᑕᐊᖅᑲᖅᓴᔪᓂ ᑭᓇᐅᔪᖓᓕᒫᓂᐅᓴᓂᑦᑐᓂᒃ ᑲᓇᑎᐊᖏᓐᓄᑦᓯᓚᐅᓂᒃ ᐃᓕᓴᐅᕙᓪᓚᑦ ᑭᓚᐃᓂᖅᓴᓂᒃ ᐃᓕᖏᐃᓕᒥᒃ. ᓄᓇᓂ ᖃᓄᖅᑎᑦ ᐊᑐᓵᖓᓂᑦ ᐊᒃᓴᓇᔪᓂᒃ ᓇᓂᐃᓕᐊᖅᑲᓇᖏᓐᓄᐊᑎᒃ ᓇᓕᐊᑐᐃᓐᓇᖅᓂᒃ ᐃᓕᖏᐃᓕᒥᒃ. ᑲᓇᑎᐊᖓᔪᓂᒃ ᑕᒪᓕᒪᓕ ᐅᓪᓗᓂ ᐊᓂᔪᓕᐅᖅᑎᓪᓗᑐᓂ ᖃᓄᖅᑐᐃᓂᓂ ᖃᐅᔨᓴᖅᓂᖅᓂ, ᖃᐅᔨᓴᖅᑲᒃᓂᖅᓂᖅᓂᐊᖅᑐᓂ ᑲᓇᑎᐊᓕᐅᖏᓐᓂᒃᑎᑦᑎᓂᑦ

ᐊᓂᒍᑎᓕᓚᓱᓪᓕ ᔪᓕᐅᓪᓚᑦᑕᓚᓱᓪᓕᖅᑐᓂ ᑲᓇᑕᒥ ᖃᓄᖅᓱᑎᐊᖅᑕᐅᖅᖃᖅ ᐊᐱᓚᓕᐅᕐᓕᒫᓂ ᐅᓂᒃᑲᖅᑎᓂᕐᓕᕆᔨᓴᓪᓚᑦᑐᓄᒃ ᖃᓄᐃᓂᒋᔭᐅᓂᒃ ᐃᓚᖏᐊᓕᐅᖏᓐᓂᑎᑦᑎᓂᑦ ᑎᓐᓕᐊᓂ ᓄᓕᐊᑦᓴᐃᓐᓇᖅᑎᓂ ᔪᓕᐊᓘᓚᐅᖅᑎᓂ ᐃᓕᓴᐅᕙᓪᓚᑦ ᐱᐅᓚᓂ ᐱᐅᖅᑎᓂᑐᓄᒃ ᐃᓕᓴᐅᕙᓪᓚᑦ ᐊᐅᓚᑎᓕᐅᕐᓕᒫᓂ ᑎᓐᓕᐊᓂ ᓄᓕᐊᑦᓴᐃᓐᓇᖅᑎᓂ ᔪᓕᐊᓘᓚᐅᖅᑎᓂ ᑕᒪᓐᓇᖅᑐᓂ

ᐅH: ᑐᐢᑐᓂᒃ ᑕᑯᓱᒪᕕᓱ ᐊᖏᓇᓱᐢᑎᓂᒃ ᑎᖏᒥᐊᓂᒃ ᖃᐅᔨᓴᖃᑎᒌᓪᑐᓱ?
ᒪᓱ: ᐊᑲᒃ.
ᓱᑦᑦ: ᑕᑯᓇᖃᕐᕕᖃᖅᐳᓱ ᐊᓱᔨᔭᖃᑐᑐᓂᒃ ᖃᑐᑎᓂᐅᔨᑎᐊᕐᓂᒃᑯᑦ ᐅᐸᓱᒪᓂᒃᑯᓪᓗ ᖃᒃᓂᑐᒧᒪᑦ ᐅᓴᕐᓂᓕᐊᕐᖃᖏᓪᒪᑦ, ᐱᖃᓱᐅᓪᓗᒍ ᐊᓱᔨᔭᕐᓂᑦ ᐊᑐᑐᐊᓕᑦ ᐱᓕᓇᖏᐅᓪᓗᓂᒃᑯᑦ ᓴᓂᓱᒪᓂᒃᑯᓪᓗᒍ ᐅᖏᓱᓐᓂᒃᑯᑦ?
ᒪᓱ: Ⅾ. Ċᵒᓇ ᐊᑐᑎᖃᓯᖏᖃᐅᐅᔨᖅ ᐱᓕᓇᓂᐅᐸ ᐁᖅᑭᓱᒪᓂᖏᓐᓄᓚᓂ ᑐᑭᓱᕐᓂᑐᑕ ᐊᔨᐸᓐᕐᑎᑐᑦ ᐅᖏᓱᓐᓂᑦᑯᓂ ᐊᐢᑐᐃᓂᖏᓐᓂᒃ Ċᒃᔪᓂᓐᖏ ᐊᓱᔨᑭᵒᓇᖅᑐᓂᒃ.
ᓱᑦᑦ: ᓇᓗᓇᐃᑭᵒᓇᖅᐱᐢᑦ ᑕᐃᒪᐃᕐᑐᑦ ᖃᐅᔨᒪᔭᐅᐊᓱ ᓇᓂᓪᒪᖏᓐᓄ ᑕᕐᐳᓂ ᐅᓂᒃᑲᖅ. ᖃᐅᔨᐊᒪᒪᒪᓗ ᖃᓇᓂᖅ ᖃᐅᔨᒪᔭᐅᐊᓕᖏᓐᓄᓚᓂ ᑕᐃᒪᐃᕐᑐᑦ ᖃᐅᔨᒪᔭᐅᐊᓕᐅᐊᐊᕐᓂᒃ.
ᒪᓱ: ᖃᐅᔨᒪᔭᕐᓂᐅᐸ ᐁᖅᑭᓱᒪᓂᖏᓐᓄ ᐁᖅᑭᓱᒪᓕᖏᓪᓗᒍ ᐅᓪᒪᒃᑐᓂᒃ ᖃᐅᔨᐊᓐᓇᕐᓂᓂᓂ ᐊᓱᔨᖅᑐᕐᖃᓕᓂᓂ ᖃᐅᔨᓴᓕᓇᖅᑐᓂᒃᑯᑦ ᑕᐃᒃᑯᓂᓐᖏ ᐊᓱᔨᖅᑐᓂᒃ.
<ᐅ: ᑲᖏᓕᐊᔪᖏᓕᒪᐅᕐᓗᐊᕐᑕ ᑐᓴᒃᑕᕐᓇᐅᐸ ᐊᖏᑦᓂᓂ. ᑕᐃᒪᐃᐸᐸ ᓱᓕ ᖃᖏᖅᐊᓂ ᑐᓴᒃᑕᕐᓇᖏᑦ? ᑲᖏᐃᑦ ᐃᖏᖏᑦ ᓱᓕ ᑕᐃᑲᓂ?
ᒪᓱ: ᖃᐅᔨᒪᔭᕐᓂᒃᑯᕐᕕᑐᑐᑐᒍᑦ ᑲᖏᑦᓴᐊᑕᓇᓂᑦ. ᑕᑯᖃᒃᑕᕐᕕᑕᖏᑦ ᑲᖏᓕᒪᓴᒃᓴᓂ ᑎᓐᓕᔪᓂᓐᖏᑐᑦ ᑕᓱᓂᓂ ᓂᑕᐊᓂ ᐅᓴᕐᓂᓂᐅᔨᓕᖅᐸ.
ᑭᐸ: ᐊᑕᖏᑎᒃᓴᓗᑎᒃ ᑲᖏᐃᑦ ᑕᑯᓂᐊᖅᐸᑎᑦ ᖃᖏᖅᐊᐊᑕ ᑯᓴᒃᑐᓂ ᖃᖏᖅᐊᓂᒃ ᖃᖏᖅᐊᐊᓂᒃ ᑐᓴᒃᑕᕐᓇᐅᐸ. ᑕᑯᖃᒃᑕᕐᓇᓪᒪᓂᓗᑦ ᑭᓪᓚᑎ 20ᒥ ᐅᓱᒃᖃᑕᕐᓇᒃᑯᑦ ᐊᖅᑯᑎᒥ. ᑕᑯᖃᒃᑕᕐᓇᐅᔪᑦ ᒃᖏᓂᒃ ᒥᕐᓇᖅᒥ ᐃᒪᓕᖅᒥ ᒥᕐᓇᐅᐸ ᖃᒃᓂᑐᒧᓂ. ᑕᑯᖃᒃᑕᕐᖃᕐᔪᑦ ᐃᒪᐅᑎᓪᓗᒍ. ᑕᑯᓱᒪᓕᖅᑐᑦ ᐃᕐᓱᓂᒃ ᖃᐅᔨᒪᔭᐅᐊᓕᖏᓪᓗᒍ ᑕᑯᕆᐊᐅᑦ. ᑕᖃᒃᐃᖅᓱᑐᐃᓇᓴᓱᑦ.
ᒪᓱ: ᑕᑯᓇᓕᕆᑎᒍᑦ ᐊᓱᔨᓕᐅᖕᑎᑎᓪᓗᓕᑎᑦ ᖃᐅᔨᒪᔭᐅᐊᓕᖅᑐᓂᒃ ᖃᓄᐃᓕᓐᓄᓚᓂᓂᓄᑦ ᑕᑯᓪᓗᐊᑕᓕᐅᖅᓴᑦ ᐃᕐᓱᓄᑦ ᑲᖏᓕᒪᓂᓂᓄᑦ, ᓇᓂᓱᓕᐅᖅᓱᒪᓕᓴᑦ ᐊᑐᓂ ᐃᕐᓱᕐᓂᒃ ᖃᖏᖅᐊᐊᓕᖅᑐᓂᒃ ᓴᓂᓐᓄᓚᓂᓂᓄᑦ, ᐅᓂᒃᑳᐊᑎᒃ ᑭᓱᐊᓂᒃ, ᐱᓕᐳᓂᖅᑎᓪᓗᒍ ᐃᓕᓴᕐᓂᒃ ᐃᓕᓴᕐᓂᒃ ᐊᑐᓂᒃ ᑕᑯᓪᓗᐊᑕᓕᐅᖅᓴᑦ ᐃᕐᓱᓂᒃ ᐊᑐᓂᒃ ᐃᓕᓴᕐ

ᐸ ᓴ: ᑕᐃᒪᓐᓇᕆᐅᕐᖓ ᑕᑯᓯᒪᖓᔪᓂ. ᐃᓐᓯᓂᑦ ᓄᓇᐃᓐᓇᖅᑎᒥ ᐅᐸᖅᓯᒪᓇᑎᒃ ᐊᓯᓂᒃ ᑎᓐᕎᐊᓂᒃ, ᖃᖓᑕᒋᓕᖅᑕᒍᓐᓇ ᐃᒪᖅᓯᓄᑦ ᐅᖅᖃᖅᑕᐃᑦ ᒪᓕᒃᓇᐃ ᓂᓚᕐᖓᑦᓇᑎᒃ.

ᐸ ᓴ: ᐊᓯᐃᓕᓱᒃ ᓂᐱᓕᐅᕈᑎᒋᖅᓯᐃᓕᓇᑦ ᐊᕐᕕᑭᓐᖏᑕᓄᑦ ᓄᓇᑎᕐᕕᓯᓄᑦ. ᓂᐱᓕᐅᕈᑏᑦ ᖁᕎᖅᑭᕐᕕᐅᓕᕐᖓᑦ ᐃᒪᒋᓂᒃ ᐃᓕᓴᖅᓯᓯᓇᖅᑐᒍᑦ ᐱᓇᐊᖏᓐᓇᓄᓂ ᓇᓕᐊᑐᐃᓇᖅᑐᑦ ᓂᐲᐸ ᑲᓇᕐᕕᐅᓇᐊᓕᓕᒋᓂ. ᒎᓇᓗ ᐱᓕᕆᓂᕋᐊᖏᓪᓕᐅᕈᖅᓴᖅ, ᒎᓕᑯᓂᓗ ᓂᐱᓕᐅᖅᖁᒪᔪᓂ ᑐᓴᓕᐅᖅᖁᒪᓇᓕ ᑲᔪᓕᓂᒃ. ᑕᐃᒪᐃᒪᒪᑦ ᐃᓕᒪᐅᑦ ᐊᐅᑎᓕᕆᓐᓂᑦ ᓕᓕᐅᑦᓂ ᐊᓕᔪᖅᑐᓂᕆᔨᖓᑦ ᑲᑎᒪᔨᖅᑎᓂᒃ ᑲᑦᓴᓕᖅᑐᑦ, ᑕᐃᒪᐃᓕᓴᕐᕕᖏᓐᓂᒃ ᐊᓕᔪᖅᑐᓂᒃ ᐊᓕᓯᒪᔪᓂᒃ ᐊᑐᓯᑎᓂᒃ

ᑲᑉᑕ: ᐃᓱᒪᑉᖏᑦ ᓂᐱᓕᐅᑎᑦ ᑕᑯᓚᐢᓇᐅᑕᐅᖏᓪᓗᓂᑕ ᐊᓱᓂᑦ ᖃᐅᔨᖅᐅᔪᓂᒃ ᐊᓱᓄᑦ ᐅᒪᔪᓄᑦ?
ᕿᑎ: ᖃᐅᔨᒪᓕᕆᓂᖅᓯᓄᖏᓪᓗᓂ ᓂᐱᖃᑎᖅᓯᒪᖏᓪᓗᑕ ᑐᑦᑐ ᑐᓴᐱᐢᓇᓗᒋᑦ.
ᓄᕼ: ᐊᒪᑭᐃᑦ ᒥᐊᓰᔪᖅᑐᑦ ᓂᐱᓕᐅᖅᑕᐅᓕᐅᖅᑲᓕᑦ?
ᕿᑎ: ᑕᑯᓇᒃᓭᒋᑕᐅᓐᑦ ᐸᓱᐊᓂ ᖃᐅᔨᔪᒥᓇᖅᑐᖅ.
ᓱᓕ: ᐅᖃᐅᔨᓱᖏᓕᐅᕆᑦᑕ ᐊᑐᐱᓇᑐᐃᓇᐊᖃᖅᓂᒥᒃ ᖃᐅᔨᓴᖏᕐᓂᖅ ᑕᑯᓇᓚᑐᑕ ᓂᕐᔪᑎᐱᓇᓱᓕᓕ ᑎᓪᒥᐊᑦ ᐅᓇᖅᓂᖅᐱᓇᓕᑦ. ᓱᖃᑲᐃᒪᒪ Ċᓕᑯᐊ ᑲᑎᒪᓂᓕ ᖃᖏᓪᓚᑯᑯᓂᖅᓯᓄᖅᑐᓂᓕᑦ ᐊᑐᑎᖃᕆᕐᓴᖅᑐᖅ ᑲᑎᓕᑐᑕ ᖃᐅᔨᓴᑕᓗ ᐸᓱᖏᓪᓚᒥᓂᖅ ᐊᓯᖅᑐᓂᓕᑦ ᐱᕆᔭᖏᓪᓗᑕ.
ᕿᑎ: ᖃᓇᑐᐃᐱᖅᓯᖏᓪ ᐋᖃᑭᑲᓱᐊᓕᕆᓂᑯᓘᔪᒃᑯᑦ. ᓱᖃᑲᐃᒪᒪ ᐅᕆᕐᓴᖅᑐᐊᖅᓴᖅ ᐃᓕᐅᕆᓚᐊᖃᑎᖃᕆᕐᓴᖅᑐᖅ ᑕᐃᑲᑯᓂᖅ ᐅᖃᖅᑎᑦᑎᓂᓕᖅᑐᑦ.

<u>ᓴᐊᐃᓕ ᑲᑕᖏᓂᑕᑦ</u>

ᓪᓗ: ᐊᑐᖅᑐᑦ ᐱᓚᓂᓪᒧᑦ ᒪᓪᑕᐊᓯᓪᑦ: 54, 36, 50 58cᓗ ᐱᖁᓯᖏᓪᒪᑕ ᕿᓂᖅᓴᓇᓂᓂᖅ ᖃᐅᔨᓴᖃᑦᑕᖁᓯᔨᓪᓗᑎᒃ ᓴᐊᐃᓕ ᑲᑕᖏᓂᑕᓂᓕ ᓇᓗᓇᐃᖅᓯᓪᓗᓂ ᐅᓂᒃᑲᓕᐊᓯᓚᕆᑦᑕᖁᓂᓕᓂᐊᖅᑐᓂᓕᑦ. Ċᓴᓇ ᐱᓪᓚᓂᖅ ᑐᖏᓪᓘᓪᓓᓕᐊᑎᖃᕆᐊᖃᖅᑐᖅ ᓄᖅᑲᖏᓐᓄᑐᓂᓕᑦ. ᐃᑲᔪᕈᓐᓇᔪᓂ ᓴᐊᖁᓂᓕ ᓄᓇᑯᐊᑎᒃᑯᓂ ᐃᓕᑐᕐᓴᖅᓯᓂᓕᑦ. ᐊᓯᐃᓇᓱ ᓇᐅᑎᖅᓯᓯᓚᕆᑦᑕᖁᓂᓕᑦ ᓄᓇᑯᐊᑎᒃᓴᓂᓕᑦ ᐃᓕᑦᑕᓂᓕᒻᒥᑦ ᑕᒪᒃᑲᓂ ᐅᑭᐱᖅᑕᐅᓕᑦ ᐊᓯᓪᓗ ᓄᓇᑯᐊᑎᒃᓴᓂᓕᑦ (ᓱᖁᓗ ᓄᓇᑯᐊᑎᒃᓴᓂᓕᑦ, ᓴᓯᓪᓗ, ᐅᓯᒃᑲᖅᑕᐅᓕᑦ, ᐊᓯᓪᓗᓗ). ᑲᑎᖁᓗᑕᑦ ᖃᐅᔨᓴᒋᐊᓕᕆᓂᖅᓴᖅᑐᓂᓕᑦ ᐃᓕᑦᑕᖁᓗᓂ ᐅᓪᓗᒥᑦ 238 ᖁᓕᐅᔨᖅᓴᖅ. Ċᓴᓇ ᓇᓪᓕᔭᓗᓪᓕᐅᖅᑐᖅ ᓇᓪᓕᐅᑦᑕᖅᑕᐅᔪᓄᑦ ᐃᓕᑦᑕᖁᓂᓕᑦ 2019ᔪᑦ, 236 ᖁᓕᐅᔨᖅᓴᓂᓂ. ᑭᖁᓪᓕᖅᕿᔪᑦ ᐅᓂᒃᑲᖅᑐᖅ ᑕᑯᔪᓐᓇᖅᑐᑦ ᐱᓕᕆᔨᒃᑯᑦ ᐃᓕᑦᑕᓂᓕᑦ ᓂᕆᐅᑎᔨᐅᔪᑦ ᖃᐅᔨᓴᖃᑦᑕᖁᓂᓕᑦ ᐱᖁᓯᓕᕆᓂᖅᓴᖅᑐᓂᓕᑦ.

<u>2019ᒥ ᓴᐊᐃᓕ ᑲᑕᖏᓂᑕᓂᓕᑦ ᖃᐅᔨᓴᖃᖅᑲᖅᓯᓂᓕ</u>

ᓪᓗ: ᑐᓴᕆᑦᖃᐅᔨᓴᑦᑕ ᐊᖏᔪᓕᓴᐃᓗᑕᓂᓚᐅᓴᐅᑉᓂᓕᑦ ᖁᑭᖅᑕᓂᐅᓴᐅᑉᓂᓕᑦ ᐃᓚᓕᓴᐅᖅᑐᑐᓗᒃ ᐃᓚᓕᓴᐅᖅᑐᑐᓗᒃ ᑲᑎᒪᓂᓕᑦ ᐅᓪᓗᒥᑦ ᓄᓇᓕᒻᒥᑦ ᓴᓇᔨᓴᖅᑐᑦ ᐃᓚᓕᓴᐅᖅᑐᑐᓗᒃ ᖃᐅᔨᓴᖃᑦᑕᖁᓂᓕᑦ ᐃᓚᓕᓴᐅᖅᑐᑐᓗᒃ

ᐱᓕᕆᑲᓂᓕᐅᔨᒥᐊᔪᑦ 2019ᒥ ᖃᒥᖅᑭᓕᑎᓂ 1 ᑭᓪᒥᑕᓂ ᐅᖏᓪᓂᓪᓕᓂ ᐅᑭᐃᖅᑕᕐᓇᖅᑎᑦ ᐊᖅᑯᑎᒥᑦ.
ᓕᑐ: ᐳᔪᖅᕼᓪᓕᑐᐊᑕᖅ ᐅᓴᕐᓂᓂᐊᕐᓇᖅᒥ ᒥᕐᓇᐅᐅᑲᖅ, ᓯᖅᓕᓂᔪᑎ ᐃᖏᑎᖅᑕᔪᓕᑐ ᐅᓯᑲᖅᑕᕐᓇᑲᑯᑦ ᐊᖅᑯᑎᑲᑯᑦ.
ᖃᖏᖓᐊᓂ ᑐᓪᑕᖅᑕᕐᓇᖅᒥ ᐳᔪᖅᓪᓕᑦ ᐅᑯᐊᖓᐅᑦ, ᓴᓇᕐᑲᖅᓴᖅᑕᕐᓇᖅ, ᑐᓪᓕᖅᑕᕐᓇᖅ, ᐅᓯᑲᖅᑕᕐᓇᐅᔪᑦ ᐊᖅᑯᑎᐊ,
ᐅᒥᐊᔪᐊᓂᓕ ᓇᖅᑕᕐᓇᖅᑐᑦ, ᐱᔪᑎᑎᑯᑯᓇᖅ, ᐱᓕᕆᑲᓂᓕᐅᔨᒥᐊᔪᑦ ᐳᔪᖅᑲᓂᖅᓴᐅᑎᓕᐅᓇᖅᐳᑦ ᓂᒋᐊᓂ
ᐃᓱᓚᐊᒥ ᐅᓴᖅᑎᑦ ᐃᓱᓚᐊᓂᖅᑎᑦ.
ᐸᑐᓵ: ᐃᓯᐊᖓᔅᓴ ᖃᐅᔨᔪᓴᓂᖅ.
ᓕᑐ: ᐃ – ᐅᓴᐅᖅᖅ 0.1 mg/dm ᐅᑦᓗᒥ.
ᐸᑐᓵ: ᑭᓴᑐᐃᓴᓇᖅ ᓴᖅᑭᑎᓴᓯᓗᒡᓗᒃ ᑭᓯ ᑭᖏᑦᐅᓂᕐᕆᑕᐅᑎᓴᒥᖏᓪᓕᑦ ᐳᔪᐃᑦ ᑲᑕᖏᓂᔅᓂᓄᑦ. ᓯᐢᓗ ᓴᖅᑭᑎᑐᓂᓂᐅ ᐃᓯᒪᔨᑐᐅᓯᓗᒡᒃ ᐊᒋᑎᓄᑦ ᐊᖏᑎᔪᑐᑦ ᐳᔪᓂᑦ ᑲᑕᖏᓂᔅᓂᓄᑦ?
ᓕᑐ: ᐳᖅᑐᓂᖅᑕᕐᑲᖏᑎᑐᖅ ᐳᔪᓄᑦ ᐃᓯᒧᓪᑕᐅᓪᓕᐊᖅᑐᒃᑐᒃ, ᑭᓯᐊᓂᖏᓴᖅ ᒐᖏᓪ ᖃᐅᔨᓴᖅᑕᐅᖏᓪᒪᑦ ᐊᒋᑎᑎᒥ ᑐᑭᓯᔪᓄᑐᑦ ᐳᔪᖅ ᐊᐅᑐᐃᖏᓪᓕᓂᑦ ᐊᐅᒃᓇᐅᓂᑦ.
ᓕᑐ: ᓇᓂᓕᒧᖅ ᑐᓴᕐᑕᕐᓇᖅ ᐳᔪᖅᕼᓂᖅᓴᓂᓐᒃ ᑕᔪᑌᑕ ᐊᐅᖃᓐᔪᑦ, ᐅᒥᐊᔪᐊᒪᔪᑦ ᐅᓯᓕᖅᓯᖅᑐᐃᑕᐅᓕᐊᖅᓐᓂᓂᑦ. ᑕᐃᒪᐃᓇᐸᓴᐅᑕᐅᖅᓴᑦ, ᖃᐅᔨᓴᖅᑕᕐᓇᖅᑕᐅᖅᓴᑦ ᐳᔪᖅᕼᓂᖅᓴᓂᓐᒃ ᐳᔪᓄᑦ ᑕᐃᒪᐃᓇᐸᓴᐅᑕᐅᖅᓴᑦ ᐊᐅᖃᓐᔪᑦ ᐊᐅᖃᓐᔪᑦ. ᑕᔪᑌᑕ ᐊᖅᑯᑎᑦ ᐅᑭᐅᖅᑎᑦ ᐳᔪᓄᑦ ᑕᐃᒪᐃᓇᐸᓴᐅᑕᐅᖅᓴᑦ ᐊᖅᑯᑎᑦ ᐊᐅᖃᓐᔪᑦ ᐊᐅᖃᓐᔪᑦ ᐅᑭᐅᖅᑎᑦ ᐊᐅᖃᓐᔪᑦ ᐊᐅᖃᓐᔪᑦ ᐊᐅᖃᓐᔪ

ᓄᓪᓕ: ᐊᑲ, ᑲᑎᒪᔨᑦ ᐃᓄᒪᑎᖏᑐᓂᒃ ᑐᓴᕐᓗᐊᖅᐱᒋᐊᖅᑕᒋᑦ ᑕᐃᒪᐃᓕᐅᕗᖅᓯᐅᑦᑕᒋᑦ ᑕᐃᒪᐃᓕᐅᖏᑦᓗᑕᔪᓐᓇᑦᓴ?
ᓕᑐ: ᑐᓴᓕᕗᖅᓗᑎᒍᑦᓕᓂ ᐱᑕᖅᑐᓄᑦ ᐅᓂᒃᑲᖅ ᐅᓐᓄᓴᐅ ᐱᓕᕆᔨᓐᓇᐅᓯᐊᕐᑕᒋᑦ ᐃᓗᐃᑦᑐᓂᒃ ᖃᐅᐅᓪᓗᓕᓗᒍ ᐱᒻᒪᕆᐊᖃᖅᑐᓂ.
ᕿᓭ: ᐃᓄᒪᓕᕗᖅᓯᕐᓂᑦ ᓴᖅᑭᑦᓗᑎᑦ ᖃᐅᓕᕆᐅᔪᑦ ᑕᒪᒃᑯᒃ ᐊᑐᖅᓗᑎᒃ ᖃᐅᑕᒧᖅᓯᓕᕆᓂᑦ ᖃᐅᓕᕆᐅᔪᑦ ᐊᕐᓇᖏᑐᓂᖓᓂᑦ ᓄᓇᖃᐊᓂᖓᓂᑦ.
ᓕᑐ: ᐊᑲ, ᑕᒪᓐᓇ ᐃᓄᒪᓄᓐᓇᖅᑕᐅᓕᑦ. **(ᖃᓄᐃᑦᑕᐅᕆᓂᖅ)**
ᓕᑐ: ᑕᐃᒪᐃᑲᓂᕐᒪᖅ ᐊᖏᖅᔪᒥᑦ ᐊᖏᖅᔪᒍᒧᑦ ᐳᓴᖏᖅᓂᖅᑲᐅᕐᓂᖅ ᐊᐅᓪᓚᓴᑦ ᐅᑭᐅᒥᑦ ᐱᓗᐊᖅᑐᒥ ᐅᓄᖅᑕᖏᓐᓄᐃᑦ ᐊᖅᑯᑎᑎᒥ ᖃᓄᖕᒪᔪᐊᓂᓗ ᑐᓴᕐᑕᕗᖅᓯᐊᓂᖅ. ᑕᒪᒃᑯᑦ ᐳᓴᖅᑕᖏᓐᓄᐃᑦ ᐅᓴᖏᖅᑕᖏᓐᓄᐃᑦ ᐊᓂᒍᖅᑕᐅᓕᕆᔨᒃᑯᑦ ᐳᓴᖅᑕᖏᓐᓄᐃᑦᑐᓂᒃ.
ᓕᑐ: ᐳᓴᐃᑦ ᑲᑕᓂᓕᖅᑎᑦ ᐳᖅᑐᓂᖅᑲᐅᓕᐅᖅᑐᑦ ᑕᐃᓂ ᐊᖏᖅᔪᒥᑦ ᖃᓄᓕᕆᓂᖅᓴᐅᑦ ᐊᖅᑯᑎᑎᒥ ᑎᓪᓗᒍ ᐅᓴᖅᑕᖏᓐᓄᐃᑦᑕᖅᑐᑦ ᐊᖅᑯᑎᑎᒥ 1 ᑭᓪᒥᑎᑦ ᓇᐃᔭᖅᑕᐅᓪᓗᑎᒃ 12ᓂ ᖃᐅᔨᔪᖏᓐᓂ 2019ᒥ; ᐳᓴᐅᑦᑐᑦ ᑕᒪᒃᑭᓪᓕᐊᓂ ᖃᐅᔨᔪᖏᓐᓂ. 2020ᒥ ᐅᓐᓴᓂᓂᖅᔪᒧᑦ ᖃᐅᔨᔪᖅᑭᒪᔪᑦ ᖃᐅᒥᖅᑕᑎᐊᓂᖅᑲᐅᔪᖅᑯᓪᓗᒍ ᓇᒪᑎᑎᑎᑐᑦ ᖃᐅᓂᖅᑲᐅᓂᖅᑲᐅᑎᑎᓂᖅᑲᖅ ᖃᑭᒃᑕᖅᑎᓂᓂ ᖃᐅᓂᖅᑲᐅᓂᓂᒃ ᐳᓴᓂᓂᖅᑲᐅᑎᑎᓂᖅᑲᖅ ᖃᑭᒃᑕᖅᑎᓂᓂ.
ᔪᐊ: ᐸᖅᓇᓂᒪᔨᓴᒍᖅ ᓂᐅᓂᒥ ᖃᐅᔨᔪᖅᓂᖅᓄᑦ - ᐃᓂᒪᓪᓗᓐᓄ ᐃᓂᒪᓂᒪᖅᓄᑦᓴᔨᓄ ᐊᓂᔨᓪᓕᐅᖏᑐᓪᓗᑎᑦ ᖃᐅᔨᓕᕆᐅᔪᓄᑦ ᖃᐅᔨᔪᖅᓂᖅᓄᑦ ᐳᓴᐃᑦ ᑲᑕᓂᓕᖅᑭᓄᑦ ᐊᖅᑯᑎᑎᑦᑕᒪᑦ.
ᓕᑐ: ᐊᑦᖃᑭᐊᓂᓂᑦᓗᑎᒍᑦ ᓂᓕᒃᖃᓂᑦ ᐳᓴᓄᑦ ᑲᑕᑐᓄᑦ ᖃᐅᔨᔪᖅᓴᐃᑦ ᖃᖏᖅᔪᒥᑦ ᐃᓕᓴᐅᓕᐊᓂᑦ ᐊᓕᓚᓴᑦ ᐱᓕᕆᓂᑦ ᐊᖅᑯᑎᑎᑦᑕᒪᑦ, ᑕᑯᓇᓂᓕᒍᑦ ᐊᑦᖃᑭᓂᓕᓂᓗᑎᓗᑦ ᐃᓂᒪᓕᑎᓐᓂᑕᑦ ᓂᓐᓄᑐᓂᑦ ᐱᖓᓱᐃᓐᓇᖅᑐᑦ ᐳᓴᐃᑦ ᐱᓕᕆᓂᑦ ᐊᖅᑯᑎᑎᑦᑕᒪᑦ ᐊᑦᖃᑭᓂᓕᓂᓗᑎᓗ

ᓄᓇᒥᐅᑕᐅᓂᖅᑕᐅᔨᓂᒃ ᐱᑭᖅᑐᓂᒃ (ᓱᓕᓪ ᑎᖏᑎᐅᕐᓴᑦ).
>ᐱ: 2019ᒥ ᖃᐅᔨᓴᓪᓕᐅᖅᓯᔪᑦ ᑕᑦᓪᓚᒪᓄᑦ ᐊᖏᕐᕋᔪᓄᑦ ᖃᓄᐃᙵᑦᑦᓪᓚᐊᓪᓄᑦ.
ᑲᐅᑕ: ᐅᖃᕆᔨᓄᑦ ᐃᒃᑯᖏᐃᐅᓪᓕᐊᓱᖅᓯᖏᓪᓕᖅᓴᓂᑦ, ᐃᓕᓴᓚᓪᓕᐅᖅᐸ ᖃᓄᐅᔨᓴᖅᑎᑦᓴᓱ?
>ᐱ: ᐊᑲᒃᑲ ᒪᑐᓱᓚᐅᑦ ᑕᐃᒪᐃᖅᑎᓄᐊᓂᐊᖅᑐᑦ. ᓴᓇᓱᓚᐅᑦ ᑐᑭᓱᓇᖅᑑᑎᓄᑦ ᐊᓱᔨᑭᓄᓇᖅᑎᑎᓪᓕᖅᑕᐃᓕᓚᒪᑦᓴᑎᒃ.
ᐊᑐᓂ ᓄᓇᒥ ᒪᑐᓱᓚᐅᖅᑕᖅᑲᖏᓚᒪᑦ ᒪᑐᐃᖏᓴᔨᒥᑐᓴ.
>ᐱ: ᖃᐅᔨᓚᐅᖅᑐᐃᔪᑦ ᑕᑦᓚᒪᓂ ᐊᖏᕐᕋᔪᓂ ᖃᑭᒃᑕᕐᑎᓄᑦ, ᐊᓱᔨᔭᖅᑐᖃᐅᓴᐊᖏᑕᑐᖅ ᓄᓇᐃᑦ ᖃᐅᖓᓄᑦ.
ᐊᓱᔨᔭᖅᑐᓂᒃ ᑕᑯᔅᖏᓚᑕᑦ ᑕᐃᒪᐃᓚᐅᑦᒥᔪᑦ ᖃᐅᔨᓕᓴᐅᑎᓄᑦᓂ; ᓇᓚᐅᐃᖅᓯᓚᐅᑦᒥᔪᑦ ᖃᐅᔨᓴᖅᑎᑦᓂᖅᑐᑦ ᐊᓱᔨᔭᖅᑐᓂᒃ ᐅᖃᓗᒍᓱᓚᐅᑦᒥᔪᑦ.
ᐅᖃᖅᓴᖅᑐᐃᔪᑦ ᐱᓕᕆᓂᖅᑐᑦ ᐊᖏᕐᕋᔪᓄᑦ ᑕᑯᔅᖏᓚᑕᑦᓴᓕᒍ ᑕᑯᔪᑦᑕ ᐊᓱᔨᑦᓴᖅᑐᓂᒃ ᐅᖃᓗᒍᓱᓚᐅᑦᒥᔪᑦ. ᐊᓱᔨᔭᖅᑐᓂᒃ ᐃᓕᓴᐅᑎᓄᑦ ᐊᖏᕐᕋᔪᓄᑦ ᐱᓕᕆᓂᖅᑐᑦ ᐱᓕᕆᓂᖅᑐᑦ ᐃᓕᓴᐅᑎᓄᑦ ᐊᖏᕐᕋᔪᓄ

ᓄᓇ: ᐅᖃᐅᓯᕆᔨᓐᓇᖅᑐᖅᑐᒃ ᐱᑕᖅᑐᑦ ᐅᓇᕐᓂᕆᓐᓄᑦ ᖃᐅᔨᓴᕐᓂᖅ ᓯᓚᖅᖃᓂᖅ.
ᑕᕐᕋ: ᖃᓄᑐᐃᓐᓇᖅ ᐊᔪᕐᓇᖓᓕᖅ ᐱᑕᖅᑐᓄᑦ ᖃᐅᔨᓴᕐᕕᓄ ᐃᓕᑎᐅᑎᓴᒪᕐᓂᖅ >ᔪᐃᑦ ᑲᑕᓂᖓᕆᓐᓄᑦ ᐅᓐᓴᓯᓂᓄᑦ?
>ᐱ: ᐱᑕᖅᑐᑦ ᐅᓇᕐᓂᖓᓐᓄᑦ ᖃᐅᔨᓴᕐᓂᕐᒧᑦ, ᓴᓇᓵᕆᑎᔪᑦ ᐊᑐᓕᐅᕐᕋᓕᒻᒥᓂᖅ ᖃᐅᔨᓕᖅᐅᔪᓂᖅ (ᓄᓇᕐᓗ >ᔪᑦ ᓇᒧᓐᓴᕐᓂᖓᓐᓄᑦ ᐃᖃᖅᐳᓚᐃᔪᓂᖅ) ᑎᑎᕋᖅᓯᒪᔪᓂᒃᓗ ᓂᕈᐊᕈᑎᐅᓂᐊᖅᑐᑦ ᐅᓐᓴᓯᓂᕐᓂᖅ.
ᑕᕐᕋ: ᐃᓱᒪᓕᖅᓴ ᓇᐃᔪᐃᔪᓂᓇᒪᓐᓴᖅᐱᑦ ᐱᑕᖅᑐᓂ ᐊᓚᖅᑐᖅᓯᒪᔪᑦ ᖃᐅᓂᑐᓂᑦ >ᔪᐃᑦ ᑲᑕᓂᖓᓐᓄᑦ ᖃᐅᔨᓴᕐᕕᑎᓂᓂ ᕿᖅᑐᕐᓯᕐᓗᖅᓯᑦ.
>ᐱ: ᖃᐅᓂᑎᓯᓂᔪᓕᓐᓂ, ᑭᓱᐊᓂ ᓇᓇᖃᖅᑐᖅᑐᓂ ᖃᐅᔨᓴᕐᓂᕐᒧᑦ ᑭᓱᐊᓂ 30 ᑎᑕᓇᑦ ᖃᐅᔨᓴᕈᑎᓇᑦ ᓇᓇᓂ ᖁᒪᒃᑕᕐᑎᓐᓂ >ᔪᖃᕐᓂᖅᓴᖅᐅᓯᓂᖅ.
ᑕᕐᕋ: ᐃᑲᔪᑕᐅᑎᔪᐅᖅᑐᖅᑐᒃ ᖃᐅᔨᓴᕐᕕᔪᖃᒃᑕᓕᕆᔨᓗᓂᓂ ᓴᓂᓇᓂ ᐱᑕᖅᑐᑦ ᐅᓇᕐᓂᖓᓐᓄᑦ ᐱᓇᐅᑕᐅᑐᖅᑐᑦ.
ᓴᖅ: ᐊᖏᕐᓴᖅᑐᖏᓐ, ᐱᐅᑎᔪᖅᑐᖅᑐᒃ >ᔪᖅ ᐊᑐᕐᓗᒍ ᐊᓯᔪᕈᓇᖅᑐᑐᑦ, ᐅᖃᓯᖏᐅᖏᕐᓂᑐᖅᑐᒃ.
>ᐱ: ᐃᓱᒪᓕᖅᓴ ᑭᓪᓕᑕ 80ᒥ ᑕᐃᖅᓇ ᐱᓕᓚᖏᓂᖅᑐᖅ ᐱᓕᓚᓴᐅᔪᓂᖅ>ᖅ.
ᓄᓇ: ᓇᓇᑕᕈᓇᖅᐲᑦ ᖃᐅᓂᑐᓂᑦ >ᔪᓄᖓᔪᖅᑐᑦ?
>ᐱ: ᑕᐃᒪᐃᓕᐅᕐᓴᐅᖅᑐᒍᑦ ᓴᐃᓴᖅᓇᓂᑦ ᖃᐅᔨᓴᕐᓂᕐᓇᓂᑦ ᑭᓱᐊᓂ ᐱᑕᖅᑐᑦ ᐅᓇᕐᓂᖓᓐᓄᑦ ᐱᐃᑭᓇᐅᕐᓴᕐᑕᑦ. ᓇᓇᑭᓇᐅᕐᓴᕐᑕᑦ ᑕᐃᒪᐃᓕᐅᕐᓴᕐᕆᔭᓕᑕ. ᐱᐅᓪᓴᖅᑲᐃ ᐱᕐᐊᑭᑎᕐᓕᔭᒍ ᐊᖅᑯᑎᐅᑦ ᖃᐅᓕᑦ. >ᐃᔪᓴᐃᓐᓂᐊᖅᐸᑦ.
(ᖃᓄᐃᓕᐅᕐᓂᖅ)

<u>ᐱᑕᖅᑐᑦ ᐃᓴᔨᓂᕐᑐᑦ ᓴᐃᕆᓴᓐᓗ</u>

ᐊᓱᓚᓯᕐᑐᑦ ᐊᓱᓇᖓᔪᑦ ᓴᓇᑭᓴᖅᑎᕈᑎᔪᑦ ᐱᓕᓚᓴᔨᓂᕐᓂᒃ ᖃᐅᔨᓴᕐᕕᔪᖃᒃᑕᓕᕆᔨᓗᓂᓗ ᐱᑕᖅᑐᓄᑦ ᐃᓴᔨᓂᕐᑐᓄᓗ ᓴᐃᕆᓴᓐᓄᑦ ᐅᓇᕐᓂᖓᓐᓄᑦ ᐱᐃᓕᐅᕐᓂᖅ >ᐱ ᒪᑦ.

>ᐱ: ᐱᓕᓚᓂᕐᒧᑦ ᒪᓕᑎᐊᓕᑦ 34, 36, 38 50ᓗ ᐅᖃᖅᓕᑕ ᐊᑐᓚᐊᓕᖏᑲᒃ ᐃᓴᔨᓄᑦ ᓴᐃᓴᖅᓇᓂᕐᓂᓄᑦ ᓴᐃᕆᓴᓐᓄᑦ. ᐊᓱᓴᓭᐅᖏᑎᑦᓗᑎᑦ ᖃᐅᔨᓴᕐᓂᓕᕐᑐ ᐱᓕᓚᖅᐅᑦᓗᑎᒃ 2012-2016. 2015ᒥ ᐊᒃᑐᐃᓂᕐᓂᖅ ᖃᐅᒥᕐᓯᐅᕐᕕᖅᓴᒍ ᖃᐅᔨᓴᕐᑯᑦᓗᑕ ᐅᓇᖏᓕᓂᒃ ᐊᑐᓚᐊᓕᖏᓂᒃ ᓄᓇᓂᒃ ᖃᐅᒥᕐᓯᕐᑯᑦᓗᑎᑦ ᐱᓕᓚᓂᐅᑦ ᐊᒃᑐᐃᓂᖏᓕᖅ. ᑕᐅᑐᑦᓗᐊᑕᓚᐅᕐᕕᖅᓴᒍ 6ᓂᒃ ᓴᐃᓴᖅᓂᒃ. ᑕᒃᑯᐊ ᖃᐅᔨᓴᕈᓚᐅᕐᕕᑕᕐᓂᖅ ᒪᑕᒃᓴᑦ ᓴᐃᓕᖅᐳᕐᑯᑦᓗᑎᑦ, ᑭᓱᓂ ᓴᐃᓴᖅᑭ ᓴᐃᓴᖅᓴᒃᑲᒪᒃᓴᑎᓂ, ᑎᑎᕋᖅᓂᒃ ᖃᒥᕐᖃᓂᖅ, ᐊᖏᔪᑦᓗ. 2019 ᓇᓗᓇᐃᒃᑯᑕᐅᕐᓂᖅ ᓯᕐᓚᑦᓯᖅᑲᒪᒍᑦ ᐊᓱᓴᖅᓯᒪᓕᕆᖅᑎᑦᓗᑎᑦ ᖃᐅᔨᓴᕐᓂᖅᑐᕐᑯᑦᓗᓂ. ᖃᐅᔨᓴᕐᓗᑎᒃᓴᓕᒪᑦ ᖃᑯᐱᖅᑯᑦᓗᑎᒃ ᖃᐅᒥᕐᓯᕐᑯᑦᓗᑎᑦ ᑕᒪᒃᑮᑦ ᐃᓴᖅᓯᐅᓂᖅᑐᑦ ᐃᓴᖅᓯᐅᓂᖅᓯᒪᓕᕆᔨᓂᖅᑐᑦᓗᓂ. ᑕᓐᓇ ᐱᓕᐊᖓᔪᓕᐅᕐᕕᖅᓴᓂᖅ ᑐᑭᓯᐅᑎᓇᓱᓕᐅᑦᓗᒍ ᑎᓐᓀᐅᕆᐃᓐᓇᖅ ᐃᓕᓴᕐᓂᖅᑐᖅ ᐃᓴᖅᓯᐅᓂᖅᑐᖅᑐᒃ ᐃᓕᓴᕐᓂᖅᑐᖅᑐᒃ. ᐱᓕᓚᓂᕐᒧᑦ ᐃᓴᖅᓯᐅᓂᖅᑐᖅᑐᒃ ᐅᓇᓗᓇᐃᒃᑯᑕᐅᕐᓂᖅ ᐃᓕᓴᕐᓂᖅ (ᖃᐅᓂᑐᖅ 100 ᑎᑕᑦ ᐃᓗᐊᓂ, ᐅᖃᓕᓚᖅ 100ᒥᑦ 1000ᒧᑦ ᑎᑕᓄᑦ, ᖃᐅᔨᓴᕈᓐᓇᕆᖅ 1,000 ᑎᑕᑦ ᐅᖃᓕᑕᓂ).
>ᐱ: ᐊᑐᓕᕐᓚᑐᒃᑐᑦ ᑲᓇᑕᒥ ᐊᐅᑎᓄᑦ ᑐᑭᖅᑎᓀᓐᓂᓄᑦ ᖁᒥᕐᑭᓕᑦ ᐱᓕᓚᓂᕐᒧᑦ ᐃᓴᖅᓯᐅᓂᖅᑐᑦ ᐱᑕᖅᑐᑦ ᐃᓗᐊᓂ ᐱᓴᓕᐅᑦᓴᑦ ᐃᓕᓴᕐᓂᖅᑐᖅᑐᓂᖅ ᐊᔪᕐᓇᖓᔪᓕᐅᕐᕕᖅᓴᒍ ᖃᐅᔨᓴᕐᑯᑦᓗᑎᑦ ᐃᓴᖅᓯᐅᓂᖅᑐᖅᑐᒃ, ᐊᑦᓯᐅᑦᑕᕐᓂᐅᑐᑐᓂᒃᓗ ᐃᓴᖅᓯᐅᓂᖅᑐᖅᑐᒃ ᐃᓕᓴᕐ

ᖃᐅᔨᓴᐅᔪᓂ - ᓴᓇᕿᓴᐃᓂ

>ᐱ: ᖃᐅᔨᓴᓱᒃᑲᓂ ᑎᒍᓂᒋᐅᖅᑐᑦ ᐱᑕᖃᖅᑐᓂ ᑲᓇᑕᒥ ᐊᖏᑎᓄᑦ ᑐᑭᔾᔪᑎᖓᓂ ᐅᓄᕐᓂᖅᑲᓪᓗ ᖃᐅᔨᓴᓱᒃᑲᓂ ᖃᐅᔨᖏᓇᓱᐊᒋᐅᓕᕆᓂᑦᑐᑦ, ᑭᓯᐊᓂ ᐊᑕᐅᓯᖅ ᓄᓇ ᖃᐅᓂᒃᓂ ᐅᓴᕿᓂᓂᐊᕐᓇᐅᓕᐊᓂᒃ ᐅ�untranslatedᒍᓐᓇᖅᑐᓂᒃ ᑕᑯᒋᐅᖅᑐᑦ ᑲᓇᑕᒥ ᐊᖏᑎᓄᑦ ᑐᑭᔾᔪᑎᖓᓂ ᐊᑕᐅᓯᐊᒃ ᑲᑎᒪᔨᖅ. ᖃᐅᔨᓴᓱᒃᑲᓇᐅᑦ ᐅ�untranslatedᒍᓐᓇᖅᑐᓂᒃᑐᑦ, ᖃᐅᔨᓴᓱᒃᑲᕐᓂᒋᓪᓗᑎᒍ ᐅᖓᓯᓚᐅᖅᑐᑦ ᑲᑎᒪᔨᖅ ᐊᑕᐅᓯᐊᒃ ᑲᑎᒪᔨᖅ ᐅᓴᕿᓂᓂᐊᕐᓇᐅᓕᐊᓂᒃ, ᑲᔪᓐᓇᒥᒃ ᖃᐅᔨᓴᓱᒃᑲᓂ ᐱᖓᓱᒃᑐ

ᐱᓴᖅᑯᒍᓐᓇᑕᖅ ᓇᓂᔪᐅᔨᓪ ᐱᖅᑯᐅᓴᓪᒥᐅᖅᓴᓪ ᐃᒍᒪᓂᒃ, ᐃᓱᒪᑎᔪᐅᔨᓐᓂᖅᑕᖅᑐᓪ ᐱᑭᖅᑐᑐᓪ ᐃᓱᒫᓘᓐᓇᖅᑐᑐᓪ ᑕᑯᐅᓱᒪᓕᓴᐅᑎᓘ ᖃᑭᒃᑕᒥᐅᓐᓂ ᐊᖏᔪᓘ. ᓱᐅᓂᔪᓂ ᐊᖏᔪᓘ, ᑎᓪᓕᐅᓇᐅᔪᓪ ᖃᐅᔨᓴᖃᐅᓂᔪᓂᓘᑎᒃ ᖃᐅᓂᑦᓴᓂ ᑭᓇᐅᔨᓕᓐᓂ ᑯᐊᓐᓄᐅᑦ ᑐᓴᕐᓂᓕᕆᔨ ᑐᓪᓚᐃᓐᓇᓐᓂᓪ ᐱᑭᖅᑕᐅᓴᓂᑎᒃ.
ᕿᓕ: ᐅᖃᕆᐊᓪᓚ ᖃᐅᔨᓕᐅᖅᑕᒥᑎᓪ ᓇᓪᓇᐃᐅᑯᑦᓯ/ᓴᓕᔪᓚᓪᓚ ᒪᓪᓴᔭᓘ ᖃᐅᔨᒪᓕᓂᓪ, ᐅᖃᐅᔨᓯᓚᕐᓂᓇᕆᐅᒃ ᒍᑯᓚᓘ.
>ᐱᓕ: ᖃᐅᔨᓴᖏᓪᑕᓯᔨᕐᔪᒍᓪ ᐅᓇᖅᑐᑭᔪᓕᓂᓪ ᓴᕆᐊᓴᓂᓪ. ᓇᓂᔨᕐᑎᑐᒍᓪ ᒍᑯᓚᓘ ᑎᑎᕐᓂᓪ ᐃᓪᓕᐅᔨᖅᓯ, ᐅᔨᐊᓂ ᑕᓪᓕ ᑕᑯᓇᐃᓪᓇᓐᓂᐊᖅᑕᐅᑦᓘ.
ᕿᓕ: ᐊᖅᑯᑎᐅᔨᓪᓇᓐᓂᖅᓴᐅᑦᓯᖅ ᑯᔨᖅᔨᐊᓇᓂᓪ >ᔨᑎᒍᑦ.
>ᐱᓕ: ᑕᓪᓕ ᑐᑭᖅᑕᖏᓐᓂᑐᖅ ᓗᖅᑲᐃ ᑯᔨᖅᔨᐊᑦ >ᖅᑐᓂᓐᓂᑦ ᐱᑕᖅᑲᓪᓚᐊᓐᓂᒪᒪᑕ ᐃᒪᔨᐅᒪᒥ, ᐅᔨᐊᓂ ᐊᑐᑎᖅᑲᓪᓚᓂᓂ >ᔨᖏᒍᑦ.
ᕿᓘᑦ: ᑕᑯᓇᒪᐊᖅᑎᒥᔨᑎᑦ ᓴᐃᕆᐅᓪᒪᒍᑦ ᑕᓇᐅᖏᓂ. ᒥᐊᑐᒍᓯᑕᓇᑦ ᑕᑯᓇᒪᐊᖅᑲᖅᑕᐃᑦ.
ᓪᑐ: ᑕᓪᓕ ᐅᖏᓇᓕᐅᓂᑦ ᑲᑎᖅᐃ ᑯᔨᖅᔨᐊᑦ >ᖅᑐᓂᓐᓂ ᐱᑕᖅᑲᒪᓪᓚᐊᓐᓂᒪᒪᑕ ᐃᒪᔨᐅᒪᒥ, ᐅᔨᐊᓂ ᐊᑐᑎᖅᑲᖅᑕᒍᑦᓘ.
ᓪᑐ : ᑕᓪᓕ ᐅᖏᐅᔨᓇᓕᐅᔨᒪᔨᖅ ᐱᑕᓇᓂᔨ ᒪᖏᐊᒍᑦ ᑕᑯᓇᒃᑯᓂᐅᓐᓂᖅᑕᒪᓕᑦ: ᑐᓴᕆᔨᒃᑯᓂᐅᓂᓪᓚᑕ ᐊᑐᑦᖅᑎᑕᐅᓂᓐᓄᓪᓚᓂᓪ ᐃᓵᔨᖏᒥ ᖃᐅᔨᐅᓂᓐᓂᑦ ᐁᖅᑭᖓᔪᐊᖅᑲᒪᔨᓂᓪ. ᐊᐃᕐᕐᓄᓗ ᑕᑯᓇᓘᓪᓚᓂᓪ ᐊᔨᔪᕐᖓᓇᖅᑎᑦ ᓇᓪᓚᐅᒪᔪᓂᑦ ᓇᒪᑎᑎᒍᓪ ᓇᒪᒪᑎᒍᓂ >ᔨᐃᓂ ᑲᑕᓵᒪᓘᓐᓂᑕ ᐅᓐᓱᓇᓐᓂᒥᑦ ᐅᓴᖏᓐᓂᒥᑦ ᐅᔾᔨᓐᓂᐊᖅᓄᓐᓂᒥᑦ ᖃᓄᐅᓂᓐ ᖃᑭᒃᑕᒥᐅᓐᓂ ᐃᒥᑦᓂᓪ ᐅᓐᓴᖅᑐᑦᓯ.
ᔨᑦᓗ: ᐅᖃᐅᔨᓴᓂᐊᖅᑲᐅᔾᔨᖅᑭᓂ ᑭᖓᔪᕐᓇᖅᑎᓂᐅᔪᖅᑭᖅ ᐱᑭᖅᑐᓂ 2021ᒪᑦ.
ᐃᒪ: ᒪᑕᒃᑐᑐᓪ ᑲᑎᒪᔨᕿᓕᑕᒥ ᑲᑎᒪᖓᕐᒪᑦᓂᑕᒥ, ᕿᓕᖅᓴᓐᓂᑦ ᐃᓱᒪᓕᔫᑦᓂᐅᔪᓐᓇᖅᑕᒃ ᑐᔨᓱᕆᐅᑎᓂᓂ ᐊᐅᓚᕐᓂᑦᓘᑐᓪ ᐱᑭᖅᑐᑦ ᐅᓇᓂᖅᑭᓐᓂᑦ ᖃᐅᔨᓴᓂᓂᖅ 2020ᒥ, ᐅᖃᐅᔨᓴᓂᐊᓚᓐᓂᑎᔪᓐᓂᓪ ᓇᓂᔪᒥ ᐊᖏᑎᓂ ᑲᑎᒪᔨᕿᓕᓂᓂᑦ ᑭᖓᔪᓐᓂᒥᑦ ᑲᑎᒪᓂᒥᑦ ᓇᓂ 2020ᒥ ᖃᐅᔨᓴᓂᓂᒃ ᖃᑦᓂᖅᓴᐅᓂᐊᖏᓐᓂᒪᑦ ᑲᑎᒪᔨᕿᓕᓂᑦ.

ᐊᐱᓚᔪᑦ ᑲᑎᒪᔨᓂᑦ ᐃᓕᓴᐅᓂᖏᓐᓂᓂᑦ >ᔨᐃᑦ ᑲᑕᓂᖏᓐᓂᓂᑦ ᖃᐅᔨᓴᐅᑎᓂᓂᒃ 1 ᒋᑕᒥᒃ >ᖅᑐᓂᖃᑦᓴᑎᑎᒃ. ᐅᖃᐅᔨᓴᓂᖃᕐᓂᑐᑐᓪ ᐊᖏᓇᓂᔭᓕᓚᓚᓪᓚᓂᑦ , ᑲᓐᓇᐊ, ᓇᓇᓂᑦ ᐊᑐᓴᓂᔪᓚᓚᓪᓚᓂᑦ ᑲᑎᒪᓚᓚᓪᓚᓂᑦ, ᐊᖏᑎᓚᓚᓪᓚᓂᑦ ᔨᓚᐅᑦᓪ ᐊᔨᔭᖅᑐᑐᓚᓚᓪᓚᖏᓐᓂᑦ ᑲᑎᒪᓚᒥᑦ ᐃᑲᔪᖏᓚᑦ ᒪᓕᒃᑕᒥᑦ ᑭᖓᔪᓐᓂᒥᑦ ᖃᐅᔨᓴᐅᓂᓐᓂᑦ ᐊᔨᓂ ᐱᓚᓚᓂ - ᖃᑭᖅᑕᓂᓴᑦ ᓇᓇᐅᑦᓂᑦ ᑲᖏᒪᓘᓐᓂᑦ ᐃᑲᔪᖅᑐᑐᓪ.
ᓪᑐ: ᓇᓪᓇᐃᓂᑎᐊᑭᒪᑲᑦ ᑐᔨᔨᑐᐃᓪᓇᓐᓂᑕᒃᑯᓂ ᐅᓇ ᖃᖅᓱᐅᓪᓚᕐᔪᓱᓂ ᑕᖅᑭᓂ ᖃᐅᔨᓴᓱᑲᓱᓂᓂ ᔨᑦᑲᐃᒪᒪ ᑕᐃᒪᐃᓕᑐᓪᓇᓐᓂᐊᖅᑕᐅᓂᒪ ᐅᑭᐅᓂᓂ ᑐᔨᔨᑐᐃᓪᓇᓐᓂᑕᒃᑯᓂ ᐅᑭᐅᓂᓂ.
ᒪᓕ: ᐊᓂᔪᓂᑦ ᖃᐅᔨᓴᓂᑦ ᓴᓇᔨᓕᓐᓂᑦ ᐅᓇ 2019 ᓴᓇᓂ ᐊᖏᑎᓂ ᑲᑎᒪᓂᔪᓕᓚᓂ ᑲᑎᒪᓂᖃᓱᓂ, ᑐᓴᕆᔨᒃᑯᓂᓐᓂᔪᓚᐊᑦᑕᐅᔪᒪᒍᑦ ᓴᓇᓂᑦ ᐊᑐᑎᖅᑲᖅᑕᒍᑦᓘᑐᓪ ᐅᖃᐅᔨᓴᐅᓂᓐᓂᑦ ᐊᔨᓂ ᑲᑕᓵᒪᓘᓐᓂᑦ >ᔨᐃᑦ ᑲᑎᒪᓂᖃᓱᓂ ᑲᑎᒪᔨᕿᓕᓂᑦ. ᐃᑲᔨᑎᖅᑎᓂᐊᖅᓴᖅᑲᐃᐃ ᐃᓕᐅᓪᓚᓂ ᒋᑲᓂᖃᖅ ᐅᖃᐅᔨᓴᖅᑎᓂᓂ ᐃᓕᖏᓐᓂᑦ >ᔨᐃᑦ ᑲᑎᒪᓂᖃᓱᓂ ᑲᑎᒪᔨᕿᓕᓂᑦ.
ᑲᐅᑦ: ᖃᐅᔨᓴᐅᑎᐊᑭᓕᖅᑐᓪᓚᑦ ᐊᔨᔪᓘᓐᓇᖅᑎᓂᑦ. ᑐᓴᖅᑎᓀᖅᓯᑎᓂ ᒋᔭᓗᓘᓐ. ᑐᐱᓗᓀᓘᓐᓇᓴᖅᓴᑎᓂ ᒋᔭᓗᓘᓐ.
(ᖃᓄᐃᓕᓴᐅᔨᓴᖅ)

<u>ᓴᓇᒥᐅᑦᑎᓂ ᐅᒪᔨᔨᑦ</u>

ᓕᓗ: ᐱᓕᕆᓂᖅ ᐱᓪᓚᓗᓂᑦ ᖃᐅᔨᓴᐅᓂᓪᓚᓂᑦ, ᐊᑎᓐᓄᖅᑐᑎᒃ ᐊᑯᓂᒧᑦ ᐊᔨᑦᑐᒧᑦᑕᒪᑦᑐᑦ.

ᐊᐳᑎᓂ ᑐᒥᓂᒃ ᖃᐅᔨᓴᖅᓂᒃ 2019ᒥ

ᒪᓕ: ᐊᐳᑎᓂ ᑐᒥᓂᒃ ᖃᐅᔨᓴᖅᓂᒃ ᑐᖅᓴᐅᑐᓂ ᑐᓴᐃᑐᓂᒃ ᐃᒃᓕᓴ ᐅᓕᕆᖅᑕᕐᓂᔪᓂ ᐊᖅᑯᑎᒥᒃ. ᐅᓕᕆᖅᑕᕐᓂᔪᑦ ᐊᖅᑯᑎ ᑕᐃᒃᓂᕐᓂᐊᕐᓇᐅᔪᓕᕐᒪᑦ. ᐅᑯᐊ ᐊᒃᑐᐊᓵᓂ ᐱᓕᕆᓂᔪᑦ ᐊᑐᓚᐊᓕᖅᓂᒃ 54 58ᓗ. ᑭᖓᓪᓕᖅᓂ ᐊᑐᓚᐊᓕᒃ ᓴᖅᑭᑐᖅᓂ ᓄᓇᓂᒃ ᑐᒃᑐᓕᖅᓂᒃ ᑕᐃᒪᐃᕐᑐᖅᓂᒃ ᐱᓕᕆᔨᐅᓵᖅᓯᒪᒃ. ᑕᑯᓕᐅᖅᓯᒪᓕᒐᒃ ᒪᓴᐃᓐᓂᒃ ᐃᒃᓐᓂᒃ ᐃᒃᖅᑐᖅᓯᒪᔪᑦ ᐊᖅᑯᑎᒥᒃ 2020ᒥ ᑭᓯᐊᓂ ᐃᓕᐊᓂᖓᒪᒪᓂ 2019 ᐅᓂᒃᑲᖓᓂ. ᖃᐅᔨᓴᖅᓂᒃ ᐊᐅᓪᓚᕐᕋᐊᖅᑐᓂ, ᐊᐱᓕᔪᖅᓂᖓᓂ, ᓄᙱᐱᓚᒥᓂ ᑕᐅᑐᖓᓂ, ᓇᒪᒃᑐᓂᒃ ᐅᓪᓗᓄᑯᓂ ᖃᐅᒪᓂᖃᖅᖁᖓᓂ ᐱᔨᓴᓀᓯᓗᔭ ᖃᐅᔨᓴᓂᒃᓯᓗ ᐊᖅᑯᑎᒥᓕᒃᑐᓂ. ᑕᑯᓕᐅᖅᑐᐃᑦ ᐅᓄᖅᑐᓂᒃ ᐃᓐᓇᐅᑎᓂᒃ ᐊᖅᑯᑎᒥᒃ 2020ᒥ ᑭᓯᐊᓂ ᐃᓕᐊᓂᖓᒪᒪᓂ 2019 ᐅᓂᒃᑲᖓᓂ. ᖃᐅᔨᓴᖅᓂᒃ ᐊᐅᓚᑕᐅᕐᕋᐊᖅᑐᓂ, ᐊᐱᓚᔪᖁᖓᓂ, ᓄᙱᐱᓚᒥᓂ ᑕᐅᑐᖓᓂ, ᓇᒪᒃᑐᓂᒃ ᐅᓪᓗᓄᑯᓂ ᐅᓪᓚᑯᑦ ᖃᐅᔨᓴᓂᖅᖁᖓᓂ ᐱᔨᓴᓀᓯᓗᔭ

2019 ᓂᕆᐊᑎᓄᑦ ᖃᐅᔨᓴᕆᓂᖅ ᓱᕐᓂᕐᒥᓗ ᐱᓕᕆᐊᒃᓴᑦ

ᒪᓱ: ᓇᐃᓐᓇᔭᑎᑦ, ᑐᒃᑐᓄᑦ, ᐊᒪᓗᓄᑦ ᐊᓱᓂᓴ ᐊᖏᕐᔾᓂᒃ ᓂᕆᔨᑦᑐᑦ ᑐᒥᖏᖅᓂᒃ ᑕᑯᓕᐅᖏᑕᑐᑦ 2019ᒥ. ᑕᑯᓕᐅᕆᓗᐊᖅᑐᒍᑦ ᐊᒪᓐᑦ ᑐᒥᖏᖅᓂᒃ ᒪᕆᕐᒥ ᑭᓱᐊᓂ ᐊᐳᑎᒥᐅᖏᑕᑐᖅ. ᖃᐅᔨᓴᕆᖃᑕᐃᖅᓇᓂᐊᖅᑐᒍᑦ ᐊᐳᑎᒃᑯᑦ ᑐᒥᓂᒃ ᓄᓇᓂᑦ ᐳᖅᑐᐊᓂᓪᓗ, ᐊᐳᑦᑎᑦ ᐳᖅᑐᓂᖏᖅᓄᑦ ᐱᓴᖅᑯᖏᑕᑐᓄᓪᓗ ᑕᑯᓴᐅᓴᑦ ᐅᖃᐅᔨᓱᓚᐅᓂᑦ. ᐊᓇᑦ ᖃᑎᖅᓱᖅᑕᐅᐅᓚᑐᑎᒃ ᐱᑕᖃᓕᖅᖢᑦ ᑐᑦᓯᓚᖅᖢᑦ.

ᓱᓕᓐ: ᐅᖅᑕᐅᔨᓱᒪᓴᕐᓇ ᐊᑐᖅᑕᕐᑕᕐᓴ ᓂᕆᔨᓄᓂᑦ ᖃᐅᔨᑕᒫᑦ ᑕᑯᓴᓴ ᑎᑎᕐᑕᐅᔨᓱᖅᑕᕐᑕᕐᓴᐅᐅᖅ ᐃᖅᑲᓇᐃᓴᖅᑎᓄᑦ ᐱᑕᖃᓱᓄᑦ ᐅᓴᖅᓂᓂᕐᒪᖓᓂᖅᑎᒥ ᑕᑯᓕᒥᓄᑦ ᐊᓂᖅᑯᑎᒥ. ᐊᑯᓂᒍᑦ ᑕᐅᑐᓴᓕᒫᑐᑕ ᑕᑯᓴᐅᓴᑦ ᐅᓴᖅᑕᕐᑕᕐᓴᐅᐅᖅ ᐊᖅᑯᑎᐊᒍᑦ, ᑕᕐᓇᓗ ᐅᖅᑲᐅᔨᓱᓴᐅᓴᑦ ᖃᐅᔨᑕᒫᓴᐅᐅᑎᓂᒃ. ᐱᑕᓱᓴᔨᑎᐊᓇᐅᖅᑯᐃᓴᓴᖅ ᐳᐃᒍᓴᐸᑎᑎᑕᒍ ᑐᑦᓯᓚᖅᖢᑦ ᑕᑯᓂᒃᑯᑦ ᐊᖅᑯᑎᐊᒍᑦ ᑕᑯᓴᐅᓴᑦ ᐊᓱᓂᓪᓗᓂᒃ ᑐᑦᓯᓚᓄᑦ ᑕᑯᓴᐅᓴᑦ.

ᐱᐅᓂᖅᓴᖅᑕᕐᑕᖅᑐᒃ ᐅᖅᑲᐅᔨᓱᓴᐅᖅᑕᕐᑕᕐᓂᖅᓴᖅᐅᓪᓗᒍ?

ᑭᐸᓕ: Ċᒃᑯᐊ ᓂᕆᔨᓄᓂᑦ ᐳᐃᒍᓴᐃᒃᐅᑎᑦ ᓴᖅᑭᑭᖅᐳᑦ ᑕᖅᓯᒪᓕᐅᓂᒃ ᑐᑭᖅᑲᓂᒃ ᓂᕆᔨᑦ ᓂᓱᖃᐅᓂᒃ. ᖃᐅᑕᒍᑎᒋᑕ. ᓇᓕᐊᓪᓚᑕᓂᒃᑕᐅᖅ ᓂᕆᔨᓄᓂᑦ ᑕᑯᓴᐅᓴᓂᒃ ᐅᓴᖅᑕᕐᑕᕐᓴᐅᐅᑎᓄᑦᑎᓂᒃ ᐅᓴᖅᓂᓂᕐᒪᖓᓂᖅᑎᒥ ᐊᖏᑎᑕᓱᓚᐅᓂᑦ. ᓱᖅᑭᐅᒃᓴᓴᓕᐊᓂᒃ ᐃᓕᓴᐅᓂᑦ ᓱᓕ ᑎᓱᒪᓂᐊᖅ, ᑭᓇᐃᓕ ᑕᐃᒪᐃᓂᖏᖅᑐᑎᒃ, ᑐᓴᐊᓂ ᑕᐃᒪᐃᓂᖏᖅᓄᑦᑎᒃ, ᑐᑦᓯᓚᖅᑕᐅᓱᖃᖅᑐᒥ. ᓱᓕ ᑲᓇᓂᐊᓗ 2020ᒥ ᑐᑦᓯᑦ ᑕᑯᓴᐅᖅᓚᑕ.

ᐸᑦ ᓵ: ᐃᓕᑕᐊᕐᓴᖅᓴᖅᓱᒃ ᖃᐅᔨᑕᒪᓕᑦ ᐅᐃᒍᓴᐃᒃᐅᑎᑦ ᓄᑭᓕᐊᑦᖅᓚᑕ ᒪᓕᒃᐸᑦᓕᐊᓂᕐᓕᑦ ᐱᖃᓱᐅᕐᓂᕆᓕᑕ ᖃᐅᔨᓴᓕᐸᑦ ᐃᒃᕆᕐᒪᐅᑎᑦ ᖃᐅᔨᓴᖅᓯᒃᑐᑦ ᐊᒃᓱᓕᓕᐅᕐᓂᖅ. ᓱᓕᓐ ᓄᓇᐃᑦ ᐅᖅᑐᐃᓐᓇᖅᑐᓂ ᖃᐅᔨᓴᕆᓂᒃ ᐃᒃᔪᑐᐃᓐᓇᕐᓂᐊᖅᑐᖅᓴᑦ ᐊᒃᓱᕈᓐᓇᕐᓂᐊᖅᑐᖅᓴᑦ ᐊᒃᓱᕈᓐᓇᕐᓂᐊᖅᑐᖅᓴᑦ ᐊᓱᓂᓪᓗᓂᒃ ᐃᒃᔪᑐᐃ

ᐱᓴᐊᖏᑦᑐᖓᓂ ᐅᑉᐳᓪᓗᑎᒃ ᖃᖅᖢᒪᕕᓴᑦ. ᓇᓗᓴᐅᕕᓂ ᑕᒃᑯᐊ ᐅᑉᐳᓇᖅᑐᑦ ᖃᖅᖢᒪᕕᓴᑦ ᐊᒃᑐᐃᓂᑎᓪᓗᒡᒪᖅᑎᒍ ᑎᑎᕋᓂᒃ ᐊᓯᓂᔪᓐᓇᓂ ᓂᕆᐊᑎᓂᒃ. ᖃᖅᖢᒪᑕᓯᖏᑐᑦ ᐊᓯᓴᐅᓯᑦ ᐅᖓᑕᓂᕋᓂᒃ ᑕᐃᒪᐃᓕᑎᐊᓕᖏᖅᓂᕋᓂᒃ ᖃᐅᔨᓴᖏᓐᓇᒃ.

ᓴᐊ: ᓴᖏᐳᑎᓯᓐᓇᖅᐱᑦ ᓇᐃᓴᐅᑎᒥᒃ ᓇᓗᓇᐃᖏᓯᓯᒥᒃ ᐊᖏᖏᔪᒡᒪ/ᑕᖏᐳᒥ ᖃᐅᔨᐅᖅᓯᒪᖅᑎᒍ ᖃᖅᖢᒪᕕᓴᑦ 6ᓂᑦ 7ᓇᑦ ᐊᖏᖏᔪᑕᐅᖏᖅᑐᓂ 2019ᒥ ᐅᓂᒃᑲᓂᕐ? ᓯᔾᓗ, ᐊᐅᓚᐅᔪᖏᔪᑦ 119. ᑕᐃᒃᑯᓇᖅᖢ ᖃᖅᖢᒪᕕᓴᑦ ᓄᐳᓂᖏᓴᐅᑎᑦᓗᑎᒃ 650 ᑭᑕᓇᑦ ᖃᓇᐃᒪᒪᑦ ᑕᐃᒪᐃᑕᐅᖏᖅᕿᑦ? ᐱᓴᐊᑎᑦᓗᑎᑦ ᐊᕐᑎᑕᓗᕆᑯᑦ ᑎᑕᑭᑎᑦ ᐊᕐᑎᑕᓗᕆᑯᑦ ᑕᐅᔨᑕᖏᖅᓯᒪᔾᔪᑎᒍ ᐱᓴᐊᖅᖢ ᐱᖏᓴᐅᑎᒃ ᐊᖏᖏᔪᑕᐅᖏᖅᓯᒪᔾᔪᑎᒍ ᓇᑕᐃᐅᓐᓇᖏᑦ ᐅᑎᕐᓂᒃ ᐅᓪᓚᕐᓂᒃ. ᐅᓗᓇᐃᑭᒡᓘᖅᑐᑦ ᐊᑕᐅᑦ ᐱᓴᐊᖅᖢ ᐱᖏᓴᐅᑎᒃ ᐊᑐᖅ ᖃᖅᖢᒪᕕᓴᑦ. ᐅᓗᓇᐃᑭᒡᓘᖅᑐᑦ ᑭᓇ ᐅᓂᒃᑲᑭᓂᕐᓂᖅᑐᖅ. ᓴᓴᑐᐊᑎᔪᖅᑎᑐᖅᑐᖅ ᓴᐳᑕᑎᑦ ᐊᖏᖏᔪᑕᐅᖏᖅᓯᒪᔾᔪᑎᒍ ᐅᑎᕐᓂᒃ ᖃᖅᖢᒪᕕᓴᑦ, ᐱᓴᐊᖅᖢᓴᓕᑕᐅᖏᖅ ᑭᓴᓂᖅ ᐊᖏᖏᔪᑕᐅᖏᖅᓯᒪᔾᔪᑎᒍ ᐱᓴᐊᖅᖢᓴᓕᑕᐅᖏᖅᓯᒪᔾᔪᑎᒍ ᐊᖏᖏᔪᑕᐅᖏᖅᓯᒪᔾᔪᑎᒍ ᐱᓴᐊᖅᖢᓴᓕᑕᐅᖏᖅᓯᒪᔾᔪᑎᒍ ᐊᖏᖏᔪᑕᐅᖏᖅᓯᒪᔾᔪᑎᒍ ᐱᓴᐊᖅᖢᓴᓕ

ᑭᐸ: ᑲᑎᒪᖅᑎᑎᓯᓚᑦᑐᐃᓐᓇᖅ ᖃᖏᑕᓂᔪᖅᑐᑦ ᑐᐱᐅᒪᑎᓪᓗᓂᑦ ᖃᖏᑕᓗᓂ ᐳᖅᑐᓂᓄᑦ ᐊᖏᕐᖅᓯᒪᔪᓂᖅ.

2019ᒥ ᓄᓇᓂ ᖃᐅᔨᓴᖅᓂᓄᑦ ᓇᐃᓐᖏᓯᒪᔪᖅ

ᒪᓂ: ᓇᐃᓐᖏᓪᓗᐊᔪ, ᐱᓕᕆᔨᑦ ᐅᓄᖅᑐᓄᖅ ᐱᓕᕆᓂᖅᓂᖅ. ᐊᑲᑎᖅ ᖁᔭᑐᑦ ᐅᖃᐅᓕᒪᓕᐅᕙᓂᔪᖅᓂᐊᖅᑐᑦᑕᐅᖅ. ᐳᔪᐃᑦ ᑲᑕᓐᓂᖅᑕᓕᖅᑐᑦ 1 ᑭᓪᒥᑕᐅᔨᑦ ᐱᓕᕆᕐᓂᐃᐅᔨᑦ ᐃᓗᐊᓂ. ᐊᓂᔪᖅᑎᓂᑦ ᐱᕈᖅᑐᑦ ᐅᓂᓂᑎᓄᓂ ᐱᓕᕆᓂᒪᑦ ᐊᖅᑐᐊᓵᖅᓴᐅᓂ ᐊᖅᑐᐊᓂᐅᐅᖅᖅ. ᐃᓕᓴᖅᑯᓂᒪᑦᑐᒪᑦ ᐱᕈᓕᖅᑲᓂᓄᓂᖅᓴᖅᑐᑦ. ᑲᑐᖅᑐᑎᓗᓂ ᑭᑯᖅᑕᑦᑐᖅᓴᖅᑐᑦ ᐱᓕᕆᓂᐅᐅᖅᖅ. ᑐᖅᑐᖅᖃᕐᑐᖅ ᑭᓇᐊᓂ ᐱᓴᖅᑯᖅᑕᑐᒪᑦ ᑕᑯᖅᑕᑕᖅᓴᒪᑦ. ᑎᑕᐅᓚᐅᒪᑦ ᓄᖅᖃᖅᑎᓕᐅᖅᑎᑦᑕᑐᒪ ᐱᕈᖅᑐᑦ ᐅᓄᓂᖅᓄᓕᓂ ᖃᐅᔨᓴᖅᓂᖅ. ᐅᓂᖅᐅᓂᔪᓕᖅᑕᖅᑐᓂ ᖃᖏᑕᓗᓂ.
ᒪᓂ: ᕿ ᐃ ᐅᖅᖃᓕᐅᕙᓕᑦ ᐱᖓᓱᒪᑦ ᐱᕈᓂᖅᑎᑦᓯᑎᑦ, ᒎᓐᓇ ᐃᓕᓕᐅᕐᓂᔪᓕᖅᑕᖅᑐᖅᓴᐅᔪᖅ ᐱᓕᕆᓂᓪᓗᑦ. ᑎᑕᐅᓚᐅᒪᑦ ᐱᕈᖅᑐᑦ ᐅᓄᓂᖅᓄᓕᓂ ᖃᐅᔨᓴᖅᓂᖅ ᓄᖅᖃᓕᐅᖅᖃᖅᑎᑦᓯᑐᒪᑦ.
ᑲᑎᒪᔨᖅᑕᐅᖅ: ᐅᖃᓕᓂᒃᑯᑦ ᐃᓚᖓᔪᒪᑦ ᐱᕈᓂᖅᑎᓯᓚᑦᑎᑦ, ᒎᓐᓇ ᐃᓕᓕᐅᕐᓂᔪᓕᖅᑕᖅᑐᖅᓴᐅᔪᖅ ᐱᓕᕆᓂᓪᓗᑦ. ᑎᑕᐅᓚᐅᒪᑦ ᐱᕈᖅᑐᑦ ᐅᓄᓂᖅᓄᓕᓂ ᖃᐅᔨᓴᖅᓂᖅ ᓄᖅᖃᓕᐅᖅᖃᖅᑎᑦᓯᑐᒪᑦ.
ᑲᑎᒪᓂᖅ: ᐅᖃᓕᐅ ᐱᓚᖃᖅᑲᓂᓕᖅᑐᑦ ᐃᓚᖓᔪᒪᓂᒃᑯᑦ ᑕᑯᓂᖅᑐᑦ ᐱᓕᕆᓂᓪᓗᑦ ᐊᖅᑐᐊᓂᐅᐅᖅᖅ ᐱᓕᕆᓂᓪᓗᑦ. ᑎᑕᐅᓚᐅᒪᑦ ᐱᕈᖅᑐᑦ ᐅᓄᓂᖅᓄᓕᓂ ᖃᐅᔨᓴᖅᓂᖅ ᓄᖅᖃᓕᐅᖅᖃᖅᑎᑦᓯᑐᒪᑦ.
ᑲᑎᒪᓂᖅ: ᐃᓚᖓᔪᒪᓂᒃᑯᑦ ᐱᕈᖅᑐᑦ ᐅᓄᓂᖅᓄᓕᓂ ᖃᐅᔨᓴᖅᓂᖅ ᓄᖅᖃᓕᐅᖅᖃᖅᑎᑦᓯᑐᒪᑦ.
ᑲᑎᒪᓂᖅ: ᐅᓂᖅᐅᓂᔪᓕᖅᑕᖅᑐᑦ ᐱᕈᖅᑐᑦ ᐅᓄᓂᖅᓄᓕᓂ ᖃᐅᔨᓴᖅᓂᖅ ᓄᖅᖃᓕᐅᖅᖃᖅᑎᑦᓯᑐᒪᑦ.
ᑲᑎᒪᓂᖅ: ᐃᓚᖓᔪᒪᓂᒃᑯ

ᐊᐱᖅᑯᑎᖅᑲᖅᓂᖅᓯᕐᓗᑦ ᓄᓇᓕ ᐊᐅᑎᓕ ᑲᑎᒪᔨᖏᓪᓗᓂ ᑲᑎᒪᓂᖅᓴᓄᑦ ᐃᓕᑦᔪᓄᑦ ᑲᑎᒪᓂᖅ ᒪᑐᐊᖅᓯᒪᔪᓄᑦ.

*****ᖃᓄᐃᓕᐅᕗᖅᓱᑦ*****

3. ᐊᒃᓴᓐᓇᓐ ᑯᑦ ᐃᓱᒪᑎᒃᖃᓂᖅᓯᓗᓂᑦ ᐃᓱᒋᓗᑕᐅᔪᑦ ᐊᖏᔪᖅᑐᓕᕆᔨᒃᑯᓂᑦ ᐱᓕᕆᑎᓕᒃ ᐊᐅᐸᖅᑐᒥᒃ ᓴᓕᖅᑎᒃ ᐊᑐᑎᒥ ᐅᑭᐅᒃᑯᑦ.

ᓇᓗᓇᐃᖅᓱᒪᔪᑦ ᑕᒃᑯᐊ ᓇᐃᐅᖅᓱᒪᔪᖅᖅᑐᑦ ᐅᑯᓂᖅ Δ) ᖃᓄᐃᓕᐅᕗᖅᓱᑦ ᒧᓐᓇᒥᑦ, ᐃ) ᖃᓄᐃᓕᐅᖏᓪᖏᓂᓄᑦ ᑐᓴᖅᑎᑎᓂᖅ ᖃᓄᐃᓕᐅᕗᖅᓯᓂᓄᑦ ᐅᑐᐱᓚ 7, 2019ᒥᑦ, (iii) ᔨᓂ 20, 2019, Δᖅ) ᐊᐃᖅᓚᓪᒃ 24, 2019 ᑲᑎᒪᓂᖅᒥᑦ.

ᓇᓗᓇᐃᖅᓱᒪᔪᓂ 1. ᓇᐃᐅᖅᓱᒪᔪᓂ ᖃᓄᐃᓕᐅᕗᖅᓱᑦ ᐃᖅᑲᐊᓚ 26, 2020 ᓄᓇᓕ ᐊᐅᑎᓕ ᑲᑎᒪᓂᖅᓴᓄᑦ ᑲᑎᒪᓂᖅᖏᓪᓗᑦ:

#	ᖃᓄᐃᓕᐅᕗᖅᓯᓂᖅ	ᖃᓄᐃᓕᐅᕗᖅᓯᓂᖅ ᑭᓇᒃ	ᖃᓄᐃᓕᐅᖏᓪᖏᓂᓄᑦ ᑐᐊᒐᕐᓂᖅ
1	ᓄᓇᕗᒻᒥᑦ ᑐᓴᔪᓐᓇᖅ ᓄᓇᓕ ᐊᐅᑎᓕ ᑲᑎᒪᓂᖅᓴᓇᑦ ᑲᑎᒪᓂᖅᖏᓪᓗᓂ ᓄᑦᖃᖅᑎᓇᑦ ᐊᔪᕐᓇᐅᓂᓇᖅᑐᒃ ᐊᐅᑕᓴᔪᓂᓕᒃ ᑲᑎᒪᓂᖅᓴᓇᑦ ᑲᑎᒪᓂᖅᖏᓪᓗᓂ ᐅᓇᖅᑐᓂᓕᒃᑲᑎᒪᓂᖅᓴᓇᑦᑐᒃ ᐊᐅᑕᓴᔪᓂᓕᒃᑲᑎᒪᓂᖅᓴᓇᑦᑐᒃ ᐃᓕᓴ 9, 2020ᒥ. ᖃᖏᓪᓕᑕᒋᐊᑦ ᐅᓇᖅᑐᓂᓕᒃᑲᑎᒪᓂᖅᓴᓇᑦᑐᒃᓴᖅᓯᒪᓂ ᓇᓗᓇᐃᖅᑕᐅᓇᓄᓇᕗᒻᒥᓂᑦ.	ᓄᓇᕗᒻᒥᓂᑦ/all	ᑲᔪᓯᔪᖅ. ᓄᓇᕗᒻᒥᑦ ᑐᓴᔪᑕᐅᖅᓴᓂ ᓄᑦᖃᖅᑎᓇᑦ ᐊᔪᕐᓇᐅᓂᓇᖅᑐᒃ ᐊᐅᑕᓴᔪᓂᓕᒃᑲᑎᒪᓂᖅᓴᓇᑦᑐᒃ ᑕᓗᐅᓂᓇᖅᑐᓇᓄᑦ ᐊᐅᑎᓕ ᑲᑎᒪᓂᖅᓴᓇᑦ ᑲᑎᒪᓂᖅᖏᓪᓗᓂ ᐅᓇᖅᑐᓂᓕᒃᑲᑎᒪᓂᖅᓴᓇᑦᑐᒃ ᐃᓕᓴ 9, 2020ᒥ. ᖃᖏᓪᓕᑕᒋᐊᑦ ᐅᓇᖅᑐᓂᓕᒃᑲᑎᒪᓂᖅᓴᓇᑦᑐᒃᓴᖅᓯᒪᓂ ᓇᓗᓇᐃᖅᑕᐅᓇᓄᓇᕗᒻᒥᓂᑦ.
2	ᐊᐸᑎᓕᓗᓴᓂ ᓱᓕᐅᓪᓗ ᐊᔪᕐᓇᖅᑐᑕᓗᓴᖏᓪᓂ ᑲᓇᑕᒥ ᑐᓴᔪᓐᓇᖅ ᐊᐸᑎᓕ ᑲᑎᒪᓂᖅᖏᓪᓗᓂ ᐅᓂᒃᑲᖏᑦ ᐊᔪᕐᓇᐅᓂᓇᖅᑐᒃ ᐅᖃᓕᓂᖅᖏᓪᓗᓂ ᑲᔪᓐᓇᓂᓕᒃ ᖃᐅᔨᓴᓂᖅ ᑲᑎᒪᓂᖅᓴᓇᑦ ᐊᐅᓚᖕᒪᓂᖅ 2019.	ᐊᐸᑎᓕᓗᓴᓂ ᓱᓕᐅᓪᓗ ᐊᔪᕐᓇᖅᑐᑕᓗᓴᖏᓪᓂ ᑲᑎᒪᓂᖅᓴᓇᑦ	ᐱᓕᕆᔨᒃᑯᓂᖅ. ᐊᔪᕐᓇᓂᓂᒃ ᑕᔪᓱᒪ ᐅᓂᒃᑲᐸᑦ ᑐᓂᔪᐅᑕᐅᖅᑐᓂᑦ ᓴᓂᐊᓂ ᑲᑎᒪᓂᖅᓴᓇᑦ ᐱᓕᕆᔨᒃᑯᓂᖅᓴᓇᑦ.
3	ᐃᓕᓴᐅᒪᓐᓂᑦ ᑕᐃᓇᒥᖏᓪ ᐃᓐᓂ /ᐸᓕᓴᓇᓕᓂᒥᑦ ᐃᓱᒪᒋᐊᓂᑦ ᓴᓇᖅᑭᑎᓕᔭᓗᓂᒃ ᑐᓴᔪᓐᓇᖅᑐᓂᓕᒃᑲᑎᒪᓂᖅᓴᓇᑦ ᑲᑎᒪᓂᖅᖏᓪᓗᓂ ᑐᓴᔪᓐᓇᖅᑐᓂᓕᒃᑲᑎᒪᓂᖅᓴᓇᑦ ᐊᐅᓚᖕᒪᓂᖅᓴᓇᑦ ᐃᓐᓂ /ᐸᓕᓴᓇᓕᓂᒥᑦ	ᐃᓕᓴᐅᒪᓐᓂᑦ ᑕᐃᓇᒥᖏᓪ ᐃᓐᓂ /ᐸᓕᓴᓇᓕᓂᒥᑦ	ᐱᓕᕆᔨᒃᑯᓂᖅ. ᓄᓇᕗᒻᒥᓂᑦ ᐊᐅᑎᓕ ᑲᑎᒪᓂᖅᓴᓇᑦ ᐱᓇᓴᖅᑎᑐᐅᔪᖅᑐᓂᑦ ᐅᓂᒃᑲᖏᑦᓴᖅᑭᑎᓕᔭᓗᓂᒃ ᐊᔪᕐᓇᐅᓂᓇᖅᑐᒃᑲᑎᒪᓂᖅᓴᓇᑦ ᓄᓇᕗᒻᒥᓂᑦ ᐊᐅᑎᓕ ᑲᑎᒪᓂᖅᓴᓇᑦ ᐊᓂᖏᔪᒃᑯᐊᓕᕆᔨᒃᑯᓂᖅᓴᓇᑦ ᐃᓐᓂ /ᐸᓕᓴᓇᓕᓂᒥᑦ.
4	ᐃᓕᓴᐅᒪᓐᓂᑦ ᑕᐃᓇᒥᖏᓪ ᐃᓐᓂ /ᐸᓕᓴᓇᓕᓂᒥᑦ ᓴᓇᖅᑭᑎᓕᔭᓗᓂᒃ ᐃᑲᔪᖅᑕᐅᓂᓕᒃ ᐅᒪᔨᔪᓄᑦ ᓇᐃᓐᓇᐅᔪᓐᓇᒥᒃ ᓴᓇᓕᓂᓕᒃ ᓇᐃᓐᓇᐅᑎᑎᔪᓂ ᐊᐅᓚᖕᒪᓂᖅᓴᓇᑦ ᐱᓕᕆᔨᒃᑯᓂᖅᓴᓇᑦ ᐊᐅᓚᖕᒪᓂᖅᓴᓇᑦ ᐃᓐᓂ /ᐸᓕᓴᓇᓕᓂᒥᑦ ᓴᓇᖅᑭᑎᓕᔭᓗᓂᒃ

	ᐊᕐᕕᒃᓱᒪᓕᕆᔨ).		
7	**ᓴᓐᓂᓪᓕᐅᑉ ᓴᓐᓂᓪᓕᐅᑉᓗ ᑯᑉ** ᐃᓱᒪᒋᔭᓕᒋᑦ ᓄᓇᕗᑦ ᑲᒪᒋᔭᖅᑎᓂᖅ ᐊᓱᐊᓂ ᓄᑦᑐᖅᑐᓂᑦ ᖃᐅᔨᓴᐅᑎᓂᒃ ᐊᓱᐊᓂ ᓄᖅᑐᐃᓐᓇᖅᑐᑦ ᐃᒃᓯᑎᓂᒃ (ᓱᓕᔭ 0.5 ᒥᑦᑕ 1 ᒥᑕᔭᓐᓂᑦ) ᓇᓕᐊᖏᓂᔭᐊᑕᖅ ᖃᐅᔨᓴᖏᓐᓇᓂᑦ ᓄᓇᕗᑦ ᐊᓂᑎᓂ ᐅᑎᓚᓇᖅᓯᒪᑎᒃ ᑭᓕᓯᓂᐊᖏᓐᓂᖅᑯᑉ ᐃᑲᔪᑎᓂᒃ (ᐅᖏᓪᓗᒪᐃᓐᖏᑦᑕ ᖃᐅᔨᓴᒪᓕᐅᔪᑦ) ᑕᐃᒪᐃᓐᓂᖓᓕᒫᑦ.	ᐊᓂᓐᓂᐅᓐᑯᑉ	ᐱᑎᐊᓕᐅᕐᓂᑐᖅ ᓯᓕ. ᖃᓄᐃᓕᐅᕐᓂᖅ ᓯᓕᓴᒃᑲᓐᓂᖅ ᖃᐅᔨᓴᖅᑎᓕᐊᓯᓕᖅᑐᑦ ᐃᓯᒪᒃᓴᖅᓯᐅᑎᒃᓴᖅᑐᑦ ᑲᓇᓐᓂᖅᑐᖅᓂᓐᓂᖅᓂᑦ.
8	**ᐃᓐᓇᐅᒪᓐᓗᑦ ᑕᐃᓇᒥᒃᓴ ᐃᓐᖅ /ᓴᓐᓂᓪᓕᐅᑉᓗ** ᐃᓱᒪᒋᔭᓕᒋᑦ ᐅᖃᖅᑎᓱᒃᑐᓂᓕᕆᓂᖅᑐᒃ ᓯᓚᖅᑲᓐᓂᖅᑐᑦ ᖃᐅᔨᓴᒪᓕᐅᔪᓂᑦ ᖃᒃᓴᓯᓂᑦ ᖃᐅᓕᒥᔪᑉᓗᑦ ᖃᒃᖏᑕᔪᓂᑦ ᐊᖏᕐᕋᒪᒥ, ᖃᒃᓴᓯᑦ ᓴᖅᑭᑕᓐᓂᑦ ᖃᒃᖏᑕᔪᑦ ᐊᖅᑐᐊᔪᓐᓇ ᒪᓕᒋᐊᖏᓂᖅᑎᓂᑦ ᐱᓴᓐᓂᖅᓯᓚᐅᒃ ᐅᑭᐅᖅᑕᐅᓂᖅ.	ᐃᓐᓇᐅᒪᓐᓗᑦ ᑕᐃᓇᒥᒃᓴ ᐃᓐᖅ /ᓴᓐᓂᓪᓕᐅᑉᓗ	ᐱᓴᓚᖅᑐᖅ. ᓄᓇᕗᑦ ᐊᓐᓂᑎᓂ ᓄᑦᑐᖅᑐᓂᑦ ᐱᐃᖏᓴᐅᓐᓇᖅᑐᖅᓂᑦᑐᖅᓂᑦᑐᖅᓴᓂ ᐅᖃᓄᐃᓕᓴᓚᖅᑐᖅᓂᑦᑐᖅᓴᓂᒃᑐᖅᓂᑦᑐᖅᓴᓂ ᐊᓯᓴᐅᓐᓇᖅᑐᓂᑦ ᓄᓇᕗᑦ ᐊᓐᓂᑎᓂ ᐊᖅᑭᔪᑕᒫᓐᓇᖅᑐᑦ.
9	**ᓴᓐᓂᓪᓕᐅᑉᓗ** ᐃᓱᒪᒋᔭᓕᒋᑦ ᐊᖏᔪᓄᓐᓂᖅᑐᓂᑦ ᐃᓱᒪᓕᔪᓐᓂᖅᑐᑦ ᐃᓱᐊᓂᑦ ᐊᓐᓂᑎᓂ ᐱᓕᕆᔨᓴᖅᑐᑦ ᐊᑐᐊᓕᓐᓂᖅᑐᑦ ᐊᑐᐊᓂ ᐊᓐᓂᑎᓂ ᐅᑭᐅᖅᑕᐅᓂᖅᑐᑦ.	ᓴᓐᓂᓪᓕᐅᑉᓗ ᐊᓐᓂᑎᓂ	ᑲᓇᓐᓂᖅ. ᓴᓐᓂᓪᓕᐅᑉᓗ ᓄᓇᕗᑦ ᐊᓐᓂᑎᓂ ᑲᑎᒪᔨᖅᑎᓂᒃᑐᓂᑦ ᐃᓚᐃᑦᑐᖅᓯᐊᓕᒪᓐᓇᖅᑐᑦ ᐊᓐᓂᑎᓂ ᐅᑭᐅᖅᑕᐅᓂᑦ ᐃᓚᐃᑦᑐᖅᓯᐊᓕᒪᓐᓇᖅᑐᑦ ᐊᑐᐊᓂ

	ᖃᐅᔨᓴᖅᓯᓪᓗᒍ ᐃᓕᑭᑐᔪᓂᒃ ᐅᑭᐅᖃᖅᑕᕐᑐᒥᑦ ᐊᐃᑉᐸᓗᒃᑐᑦ ᑎᑎᕋᐅᓕᖅᑐᑦ 2019ᒧᑦ.		ᐊᖏᓚᓴᕐᑎᑦ ᑎᖅᑎᐊᑦ ᖃᑭᑐᖅᐳᓂᓕᖅᓯᑦ ᐅᐸᒃᓴᒪᓕᖅᑎᓪᓗ ᒥᔪᐊᑎᕋᓕᓂᓪᓗ ᒥᔪᐊᑎᕋᐊᓂᖅ ᐅᓇᓴᐃᓐᓇᖅ ᐅᑎᖅᑎᒋᑦ ᐊᐅᓚᓂ ᐅᑎᖅᑎᒋᑦ ᐊᑐᐊᓂ ᑲᑎᒪᓂᖅᑐᓂᒃ ᐅᑭᐅᖃᖅᑕᕐᑐᒥᑦ ᐃᓕᑭᑐᔪᓂᒃ

Terrestrial Environment Working Group (TEWG) Draft Meeting 22 Minutes

Date: Wednesday June 24 2020
12:30 pm – 5:00 pm (EST)
From a **Computer (PC/Mac)** or **a Smartphone/Tablet (iOS-Android)**, click the following link :
https://cms.baffinland.com/invited.sf?id=064701805&secret=3rqNSk7iCqrsfVLhdIwrOg
From a **phone**, dial +14168142855, and enter the meeting ID (064701805)

Member Organization	Participants	Member Organization	Participants
Baffinland Iron Mines Corporation (Baffinland)	Lou Kamermans (LK) – (N)	Qikiqtani Inuit Association (QIA) and Consultants	Jeff Higdon (JH) – (Y)
			Chris Spencer (CS) – (Y)
	Genevieve Morinville (GM) – (Y)		Bruce Stewart (BS) – (Y)
			Susan Leech (SL) – (Y)
	Emma Malcolm (EM) – (Y)	**Observer Organization**	**Participants**
	Kendra Button (KB) – (N)	Canadian Northern Economic Development Agency (CANNOR)	Arusa Shafi (ASh) – (Y)
			Adrian Paradis (AP) – (N)
		Natural Resources Canada (NRCan)	Peter Unger (PU) – (Y)
		World Wildlife Fund – Canada (WWF)	Andrew Dumbrill (AD) – (N)
Mittimatalik Hunters and Trappers Organization (MHTO)	Phanuel Enooagak (PE) – (N)		Brandon Laforest (BL) – (N)
	Enookie Inuarak (EI) – (N)	Nunavut Impact Review Board (NIRB)	Solomon Amuno (SA1) – (N)
	Amanda Hanson-Main (AHM) – (Y)		Cory Barker (CB) – (N)
Environment and Climate Change Canada (ECCC)	Krupesh Patel (KP) – (Y)	**Baffinland Consultants**	**Participants**
	Paul Smith (PS) – (Y)	Environmental Dynamics Inc. (EDI)	Kerman Bajina (KBa) – (Y)
			Mike Setterington (MS) – (Y)
			Elaine Kennedy (EK) - (Y)
Government of Nunavut (GN) and Consultants	Brad Pirie (BP) – (Y)		Graeme Pelchat (GP) – (Y)
	John Ringrose (JR) – (N)		
	Natalie O'Grady (NO) – (Y)		
	Stephen Atkinson (SA) – (N)		

Agenda

Time	Activity
12:30pm – 12:45pm	Welcome and Rollcall
12:45pm – 1:15pm	Baffinland Update • 2020 Production Update • Update on Extensions Request to Production Increase Proposal • Impacts of COVID-19 on 2020 terrestrial monitoring programs • TEWG Terms of Reference
1:15pm – 2:00pm	Review of Comments on 2019 TEAMR • TEWG feedback and program limitations • Low survey effort for mammal monitoring • Dustfall and vegetation monitoring program alignment • Incorporation of Inuit feedback and experiences (dustfall monitoring, caribou avoidance) • Mitigation for avoidance of migratory bird corridors • Helicopter flight analysis
2:00pm-2:15pm	Health Break
2:15pm – 3:00pm	2020 Terrestrial Monitoring Program Overview
3:00pm – 4:45pm	Caribou Monitoring: Triggers and Strategies
4:45pm - 5:00pm	Roundtable and Action Item Review

Discussion and Comments
Baffinland Update
Baffinland (EM) welcomes all participants from member and observer organizations. EM: We will be giving an update on where we are at with our extension proposal. We will provide a brief overview on how COVID-19 has impacted our terrestrial monitoring program activities. We will also provide a brief status update on the Terms of Reference (TOR) for the TEWG. Things haven't fallen off the radar. We are making sure to incorporate all commitments before issuing another draft. We will go through briefly key themes of topics, not an exhaustive list but identified by us as priority items.
Baffinland (EM) presents an update on Baffinland 2020 activities, as described below. <u>2020 Update – Production - Slide 2</u> EM: As you all know, we received approval for on our Extension Request to Production Increase Proposal, which is consistent with the NIRB's recommendation to the Minister. We are targeting the hauling of up to 6 MTPA of ore moved on haul road - similar numbers expected for 2020. <u>2020 Update – Mitigation and Environmental Management - Slide 3</u> EM: The initial application of Dust Stop® along the Tote Road is planned for the end of June. We have ordered supplies for the 2021 year, which will be brought up on this year's sealift. EM: With regards to dust suppression at stockpiles, we are exploring a number of dust suppressants. We are in the preliminary stages of investigation, and require approval by the Government of Nunavut (GN) on an acceptable suppressant method. We will keep the TEWG up-to-date as we proceed forward. EM: With regards to the fencing at the landfill, it was completed in late-2019. The intention and request from the NIRB was to reduce any interactions with the landfill. <u>Photos (Slide 4)</u> Bruce: How much Dust Stop® has been ordered? CD: We can report back on this (**ACTION T-24062020-1**). <u>Impacts of COVID-19 -Slide 5</u>

EM: The COVID-19 pandemic has affected the 2020 monitoring field season. For instance, it has affected the overall issuance of licenses and permits. There have been delays in securing Nunavut Research Institute (NRI) permit due to staff availability. Furthermore, there have been delays in receiving permits, such as the GN wildlife research permit.
EM: The pandemic has also affected the implementation of Terms and Conditions as well. Overall, we will be able to pursue most programs associated with the terrestrial environment. Due to travel restrictions in Nunavut, we will not be able to have any Nunavummiut-based folks working on our programs as they are not allowed at the mine. With regards to the collaboration with GN and Northern Contaminants Program (NCP) for caribou tissue metal sampling – we had provided a brief update back in February 2020. The funding has been delayed due to COVID-19. Typically, decisions are provided in March. However, no decision has yet been received. We are still waiting to hear back. Another key component is working closely with the MHTO and providing training and equipment to do tissue sampling. Again with the travel and restrictions on gathering in Nunavut, we're not sure what the next steps will be. At this point, the compliance with No. 35 is up in the air.
EM: Other items that have been impacted by the pandemic include budget – there are now some constraints. We've needed to revise our approach to our workforce. Health and Safety - people coming in and out of the Mine Site, procedures at the Mine Site, as many of you are aware we made the decision to send our Inuit workforce home to ensure risk of transmission was minimized within communities. We have been able to retain our workforce and they are all home. We are filling in roles from elsewhere while our Nunavummiut workforce is home. We've established ferry flights throughout Canada to ensure employees can get to the Mine Site safely, etc. It is possible that some delays will be expected for lab analyses. We don't know specifically how it will affect our reporting timelines in 2021, but we are keeping the NIRB updated as we have more information throughout the year.
TEWG Terms of Reference – Status Update - Slide 6
EM: As part of conditions of the MTPA Extension request, there are items associated with no. 183 and the Marine Environment Working Group (MEWG). Although not necessarily applicable to the TEWG, we intend on applying the same approach to the MEWG. I.e. tracking table will be carried forward as part of the working group. We want this to be reflected in the TOR. The Minister has heard some of the conversations that have occurred. **(ACTION T-24062020-2)**
EM: Any questions from the TEWG?
SL: I am wondering about the tracking table that you are mentioning, I understand that it would be submitted to DFO and NIRB, who would it be submitted to with the TEWG?
EM: The Minister has required us to submit to DFO and NIRB. Ultimately the tracking table will be shared with the entire working group members to ensure transparency. This would be done with all TEWG members as well.

*****ACTIONS*****

1. **Baffinland** to provide an update on the amount of Dust Stop® ordered for 2020.
2. **Baffinland** will develop a tracking table that includes formal recommendations made by members of the TEWG should they be submitted.

Review of Comments on 2019 TEAMR

Comments on 2019 Terrestrial Environment Annual Monitoring Report – Slide 7
EM: with regard to TEWG feedback and program limitations – we already capture this as part of the Terrestrial Environment Annual Monitoring Report (TEAMR). It was mentioned that there was a low survey effort for mammal monitoring. This is being addressed through the EDI caribou monitoring analysis (to be discussed later). With regards to dustfall and vegetation monitoring program alignment, this is being addressed through the pairing of vegetation monitoring sites and new analyses to investigate trace metals relative to dustfall at paired sites.
Comments on 2019 TEAMR (cont'd) – Slide 8
EM: With regards to the incorporation of Inuit feedback and experiences, we received comments around dustfall monitoring, caribou avoidance, etc.
EM: We've heard from local information that dust extent is farther than what we are able to measure. We discussed this briefly during the February 2020 meeting. We are now exploring the use of aerial imagery. We have been

exploring the use of satellite imagery and also how something visible to the naked eye may not be visible at the analytical level. We made a commitment at the February 2020 meeting to reach out to NRCan to see if there are any new tools. Peter U. facilitated a meeting with Peter White at NRCan and seeing if there is a possibility to work on a project like this. It was a very preliminary project. We are looking at a pilot noise monitoring study as there are concerns around noise profiles, scent of blasts, etc. which may be acting as a deterrent from caribou interacting with site. We had been indicated that we did not need to continue monitoring for Red Knot in the Northern corridor thus will use these monitors as part of pilot project to see if we can characterize noise from the Project versus ambient natural noise.

Comments on 2019 TEAMR (cont'd) – Slide 9

EM: Mitigation for avoidance of migratory bird corridors, the requirement for SNGO was identified as part of PC No. 005. This came primarily because baseline studies indicated that there could be interactions between project helicopter use and snow goose (SNGO). The QIA had requested whether additional measures would be put in place, and whether additional mitigation measures needed to be put in place.

SL: What we were referring to is that in the course of the last TEWG Feb 2020 meeting, we heard from one of the Inuit participants that there were possibly SNGO areas that were important to avoid. That was where the comment was coming from. There might be some additional community input that we should be considering. I don't know more about what we are to say, because I'm on the western time zone, and I only really got the documents minutes before the meeting.

EM: This was with regards to Comment 67 made by QIA.

PS: The only document that I'm aware of from scientific studies are key areas around Steensby area, and there are a number of areas of arctic shorebirds that you should perhaps be aware of. Of course, the marine seabirds and the MEWG. I'm not aware of any other key areas, but certainly local information would be helpful.

MS: For baseline work, 2008 to present, certainly one of our first sources was an author on the Canadian Wildlife Service document and he is the main bird biologist on our file. I can't remember the comments specifically mentioned about other key areas.

AHM: Unfortunately, I don't remember a comment that was made about the last call. I have not been able to connect with the MHTO to see if there are other issues. Absolutely if there are other areas for us to consider, we should look at the concerns that are coming forward.

PS: Baffinland did contribute to the Program for Regional and International Shorebird Monitoring (PRISM) studies. And these count towards all bird surveys. They did all of Northern Baffin Island surveys. Those analyses are almost done and thus will provide baseline information on all of northern Baffin Island.

EM: Thanks PS, we appreciate the input and inclusion of MHTO into areas would be worthwhile, and with PRISM surveys, that will be helpful. **(ACTION T-24062020-3)**

Comments on 2019 TEAMR (cont'd) – Slide 10

EM: We have received substantial input into flight analysis. Lots of comments from Steve Atkinson (GN). The current compliance system doesn't help to tease out the number of helicopter sites and reasons for flights are not necessarily provided. Our takeaway with this is that we went back to Site Environment, Exploration team, and EDI GIS specialist to look at current classification system and what we were tracking, what we are doing, what do the flight logs indicate, and see what we can include. Part of this involves looking at past year's flight logs to see if we can align characterization of logs (e.g., has helicopter increased over project years due to monitoring programs, production, site inspections, etc.) and then from that see if we should be making modifications on management and amount of flights being completed.

EK: We are currently working on this right now. Because it involves past years' data, it may differ from future years and alignment. It does take a bit of time to do this, so we won't be able to have the 2019 analysis done, but we will be able to have the results as part of the 2020 monitoring report results.

SL: Is it possible to do this with the 2019 data? I understand it takes time to go back in history. Being able to understand the number of flights compliant by height and not compliant would be beneficial. The total amount of time that was below the thresholds compared to the total flight time would be helpful and whether immediate mitigation is needed to try to get the flight heights a bit higher. Or even though we're getting lots of flights below, how long are they?

EM to CD: Do you know if we've recorded this type of information in terms of time below a guideline versus above a guideline for a single flight?
CD: I took notes down and will look at the helicopter flight logs, especially time below and above. The current dataset doesn't necessarily capture this. We will need to see with helicopter contractor if this is possible. If the vertical wasn't maintained, then we should have the lateral distance explained.
MS: We did look at this. We are flying at the edge of the buffer, and are flying not along the concentration in the middle. We had come up with a resolution at the time.
PS: It's not practical to have a condition that cannot be met and then have a practical solution to allow the mine to be compliant, rather than having continually non-compliant status.
MS: We are skirting the edge of that migratory buffer.
PS: I will follow up internally to see how the guidance was developed. This comment is looking for why the lateral is not followed. Likely the pilot found it impractical. **(ACTION T-24062020-4)**
EM: Connor, can you provide context on how the flight height guidance is provided? Something on procedures and processes?
CD: Part of onboarding for all of our pilots, whether for Environment or Exploration purposes, they receive a package that shows flight heights, snow goose zone – such waypoints are uploaded by pilots. I will go back to them on the lateral distance. We can go through this with them. Again, Exploration has their own onboarding, and then all of the passengers are also responsible to remind each other of these requirements. We are trying to improve but we are getting to the granular level when we're tracking all information.
MS: Are the pilots informed about if they see wildlife, are they instructed to increase altitude?
CD: We have bullet points specific to this. We can date it and provide these guidelines to field crews and pilots for review as an information package to the TEWG.
MS: This is a hard thing to capture. They may be skirting, but if they were seeing birds, we would assume that they would gain altitude.
CD: That is safe operations of a helicopter. The pilot will tell you if they see a hazard – they are constantly scanning the sky.
EM: If this is helpful for us to share, we can provide this for your review and this would respond to your comment, Susan, about identifying potential mitigation. It may help for you to understand what the guidelines are and what the pilots have at hand as part of their operations. I can send a copy to everyone. (**ACTION T-24062020-5)**
SL: That sounds good. I think it was PS that said that whatever the guidance is or the conditions striving to meet, they need to be operationally feasible. One thing we suggested is to change the terminology so that it's obvious what is compliant versus explained, and compliant and not explained. If we're seeing a lot of non-compliant flights that are explained, then it's easier.
EK: This is currently captured as part of the current analysis – fully compliant, non-compliant with rationale, and then non-compliant with no rationale. We also added a breakdown into types of rationale. It is included as a percentage and number of flight points. We have it summarized that way. I think you also indicated about time, the height limits. Currently as reported, there are 3 categories. And we did provide the categories.
SL: If we can do this by duration, that would be great.
EK: I think that most non-compliant flights are likely short, such as bumping between sites.
EM: This wraps up the key comments that we wanted to highlight with the group. We are almost done going through all of the comments provided and being in a position to providing a final version of the report and a comment response form.
EM: Before we move forward with 2020 programs, any additional comments or are we good to discuss plans for the summer?
CS: As a general comment – I want to highlight that the QIA was a tad concerned about the late submission of the meeting materials and only had a short amount of time for review. The time required for review, the scale, the types of materials - a week would likely be appropriate for us. A bit off-topic, but needed to be said.
EM: All of our consultants also work on the west coast. Apologies if meeting is a bit too early. It is a bit of work to pull all of these together. Fair comment and we will try to get these out sooner.
SL: 9h30 pacific is not too early. I would assume that the east coast would get the materials 3 h in advance.

EM: We will take that away. Based on the agenda, we are now ready to proceed into the monitoring program presentation.

*****ACTIONS*****

3. **Baffinland** to consider holding a future engagement session on potential identification of migratory bird concentrations.
4. **ECCC-CWS** (PS) to follow-up internally on how the flight height guidance was developed.
5. **Baffinland** to share copy of guidelines provided to helicopter pilots and passengers with regard to flight height guidance.

2020 Terrestrial Monitoring Program Overview

Relevant to Project Certificate Conditions 14a, 32, 34, 36, 37, 38, 50, 53, 54, 57, 58 , 59, 60, 66, 70, 67, 68, 69, 70, 71, 72, 73, 74, 75, 107

EK: I will speak on EDI slides. I will be fairly brief since you'll be already aware of our ongoing programs.
Slides 1 to 4
EK provides brief overview of dust program.
CS: How many dust monitors will you be installing?
MS: We will install four (4) monitors, upwind and downwind (2 in each direction).
EK: We are not running the vegetation abundance surveys. We will repeat the sampling for metals to verify results from 2019. Typically, this is done only every 3-5 years, but repeating analyses again this year.
SL: You're not monitoring vegetation this year?
EK: We're not monitoring abundance, but repeating metal surveys this year to look at anomalies.
SL: I can't remember recommendations that came out from last meeting. I know that I remember the height of dustfall samplers being discussed of setting from 1 m to 0.5 m. apologies if this was resolved.
EM: To recap, you would like to further discuss the location of dustfall locations along the rail line **(ACTION T-24062020-6).** That's a fair request. This is something we need to see if we can deploy because it will depend on when the samplers can arrive to site. We could share a figure to show the proposed locations to get feedback. If you're agreeable to that, this is what I propose. With regards to vegetation abundance monitoring – you're correct that this is a point of discussion. EDI had noted that the 2019 results that our intention was not to do the vegetation abundance monitoring for the 2020 year. The position has not changed on our end. We did have additional internal discussions on the value of running again in 2020.There are two factors as to why we did not proceed: i) advised by EDI and BIM that there wasn't a need to continue running it again based on the number of years we've been running the program. Ultimately we were not seeing any clear trends or correlated effects from the Project, so at this time we are taking a year off and resume consistency as outlined in the schedule of TEMMP; and ii) the other factor, as mentioned at the start of the call. We have had a lot of additional budgetary pressures as a result of COVID-19 due to the employment of additional safety procedures and the hiring of a supplemental workforce. We needed to prioritize necessary programs (i.e., anomalies in past data, was there significant technical deficiencies that would require us to repeat, do we have a robust dataset enough). The only program being cut is the abundance monitoring from the 2020 monitoring program in spite of some members recommending that we continue.
Deploying additional dustfall collectors at different heights, thus moving away from a 2 metre minimum and characterizing at lower heights. Mike and Elaine, correct me, the 2 metre height is standard and is applied across Canada. The reasons were extensively discussed by LD (EDI) last meeting. Our position hasn't changed on whether it would be appropriate to have them at different heights. Our focus is on expanding at different locations such as at Milne Port, and trying to better understand the visual aesthetics beyond what is being picked up at the dustfall monitors at the further sites with the detection limits that can be met.
SL: I do think that one of the key components is really understanding the dustfall extent and the plume and the amount of dustfall. The aerial imagery approach will get to that extent. Maybe that is the first step to take at looking critically on whether there is a better way to calibrate. This was a comment originally brought up by the Government

of Nunavut (GN). I understand the constraints and the current epidemic. I think we need to keep this one open, and whether we need to continue to address the concern. Can anyone from GN pipe in?
BP: Our position hasn't changed since the last meeting. We want to know what is happening to the vegetation itself.
EM: Thank you, BP. As you say, if you want to continue to bring this up, we also want to understand the full extent of dustfall. Our position is to explore it but use methods that will be scientifically defensible or have been established elsewhere rather than using experiments to try to uncover data that may not be useful. We will continue to engage with NRCan as we have more information to share. **(ACTION T-24062020-7)**
SL: Before we leave the dustfall monitoring topic, as I said, I think the aerial imagery will address the extent and is not a research question. We're missing some important data. We need to know what the potential avoidance is and whether there is a concern to caribou, and impacts to cultural practices. I will try to connect with the GN if we need to do a more formal "application" for a change.
EM: To your point, trying to understand what the effects are on vegetation and metals, etc.
SL: Can you please expand on whether we can extrapolate information from the metals sampling of washed versus unwashed?
EK: There are two vegetation components directly related to the dustfall. There are paired sampling sites where dustfall sampler and a metals vegetation and soils sampling is looked at. This is one analysis that incorporates dustfall levels. There are also the washed and unwashed samples. Half of the lichen samples were washed to differentiate between the dust on the metal sampling versus just in the lichen tissue themselves. I'm fairly certain that there were no significant differences between washed and unwashed.
EM: The driver for the recommendation is to better characterize the amount of dustfall on the vegetation. We are already looking at metals sampling on the vegetation, as opposed to doing it through the passive dustfall. We are measuring directly on the vegetation.
EK: With the dustfall samplers, we do direct sampling of deposition, while the vegetation samples the direct effects on vegetation.
SL: To reiterate, in addition to metals concentrations on washed and unwashed, you would also look at the amount of dust on vegetation?
EK: Washed versus washed. It doesn't quantify how much dustfall there is. It's only looking at the metals concentrations.
EM: Are there any more comments on vegetation abundance?
SL: Wetter versus drier plots. Is moisture affecting the results?
<u>Soil and Vegetation Monitoring Sites Photo - Slide 5</u>
EK: this is a photo from out vegetation monitoring program.
<u>Exotic Invasive vegetation - Slide 6</u>
EK: With regards to the monitoring of exotic invasive vegetation, this is done every 3 to 5 years. We will be going back to the site where the plants were growing and see if they are growing again this year.
<u>Photo Of Tomato Plant -Slide 7</u>
EK: A tomato plant was found at the effluent outflow.
<u>Snow Bank Monitoring -Slide 8</u>
EK: the monitoring of snow bank height takes place at least once a month along the Tote Road. Monitoring locations are randomized.
<u>Snow Tracks - Slide 9</u>
EK: Snow track surveying is complete at least twice each winter but is dependent on snow conditions and visibility (daylight hours). Surveyors record all wildlife tracks observed along the Tote Road to assess if there has been any wildlife interactions with the road.
<u>Height of Land - Slides 10 and 11</u>
EK: This survey has been used since 2013. It is used to document caribou use on the landscape. Surveyors look for potential interactions with project activities. Site visits increased to at least 2x per year – such visits took place in late May to early June, during calving season. There were lots of delays in 2020 because of a big snowstorm.
<u>Human Use and Wildlife Log - Slide 12</u>

CS: My understanding from the caribou workshop – some members from either the Hamlet of Pond Inlet or MHTO said they did spot a heard of caribou across the river. That was shared throughout the bus. It sounds like that hasn't been included here.
CD: Elaine was mentioning Height of Land survey observations, not overall observations.
EK: The wildlife log would have recorded any incidental sightings, including the one you mentioned during the caribou workshop visit. This gives a high level indication and preliminary estimates of relative abundance.
Arctic Raptors Inc. Collaboration - Slide 13
EK: They do a wide-scale research program throughout Nunavut. This has been ongoing over several years. They also do work throughout Nunavut and can expand the data into a broader scale. They can also compare this to different monitoring end results that they uncover.
2020 Monitoring; Birds - Slide 14
EK: Additional components of our programs includes the Active Migratory Bird Nest Searches (AMBNS) pre-clearing surveys. We run every 5 days within any clearing activity. The purpose is to detect any nesting birds in the area. Activity is completed when nests are found and young have fledged.
KP: One point to add for clarification. Although we agree that Red Knot surveys are not required in 2020 for the northern route, we would continue to recommend they be done along the Southern route once activities ramp up in those areas.
Monitoring: Raptors - Slide 15
EK: The one main component are the occupancy and productivity surveys, known nesting sites, what species, and 3 visits throughout the summer. Such surveying captures presence, failed attempts, successful attempts, offspring and success. They also do small mammal trapping as done in 2019, and will continue in 2020. Looks at cycles of lemming populations and cycles at rough legged hawk. They typically peak at every 4 years. Also avian distance sampling and reporting all birds along transect and at what distance.
PS: Is the small mammal trapping using snap traps?
EK: They have two permanent transects. And ~ 240 traps. They run each for six (6) nights.
PS: Has this been done in the past? With my experience, observational analyses may be better because there are sometimes bird mortalities. To minimize, from my perspective, they are not a modern method to use.
EK: I think there may have been one bird mortality.
CD: I do not see it.
PS: Alastair will be aware of this method being archaic.
SL: For the snow track surveys, we had requested ways to explore new methods for combining incidental reporting and survey effort, we could get more information on animal abundance. Has this been considered in this year's monitoring programs?
EM: The recommendation was to report the amount of effort for the wildlife log. At this time, we had the environmental coordinator, Kendra Button, participating, and she mentioned that this was something that could be explored. E.g., Number of environmental technicians, other field folks so that we could look at extent.
CD: I want to be clear on the wording. The wildlife sightings are for anyone at the mine site. It is not feasible on overall observations. We have this on our radar for specific field crews, and also on the radar of the QIA environmental monitors, we also have this in the trucks used by Site Environment. We will not be able to capture the entire effort from the entire mine site.
SL: Where you have dedicated work being done, capturing survey effort would be helpful.
CD: This is being actioned this summer, we just can't say the proportion. **(ACTION T-24062020-8)**
SL: We also indicated having 2 independent observers collecting data. I get that you don't have any observations.
EM: We didn't have more than two consultants from EDI. Because this year was unique in terms of loss of participation from Inuit and MHTO, we didn't further supplement the team with additional observers. That is something we could continue doing in future years, but not pursued in 2020.
CD: Due to COVID-19, it is a requirement that the mine is totally isolated from Nunavut.
EK: How many days did we have an Inuk participate from our HR team?
EM: This was not executed this year.
SL: Whenever you do get to see caribou, this will be important. That's it for me.
2020 Monitoring: Helicopter Overflights - Slide 16

EK: Continued analysis, flight paths, documentation of flight logs, and traps, are in response to TEWG. We will continue collecting all of this information. A more detailed analysis is planned for 2020 in response to TEWG meeting 21, which took place in February of this year. (The pilots currently have all of the guidelines that we've discussed.)
Slide 17
EK: This slide provides example of when we are being compliant. It highlights compliance versus non-compliant flight paths, as well as provides rationale for a non-compliance.
2020 Monitoring: Noise - Slides 18-19
EK: This slide is on the noise monitoring pilot study. Such monitoring was done in response to prior concerns on caribou avoidance. Contributes to Zone of Influence discussions. During this monitoring, we look at the decibels, duration and frequency (Hz and how often) and how these characteristics are changing with distance from the mine. There are nine (9) sites shown in Slide 19. There are Near, Far and Reference distance classes at the Mine Site, Tote Road and Milne Port. The Near sites are within 200 m. The Far site are about 1 km away from Project footprint. Autonomous recording units (ARUs) are used for such monitoring – the same recording units used for the Red Knot surveys, and also testing Audiomoths, to see if one works better over the other, explore scaling up based on initial results. They are recording every 15 minutes, for every hour. The first round of data was set up during the Height of Land surveys, and then they will be set up again for a second round of monitoring.
EK: That's the end of the monitoring programs.
EK: Any questions?
PS: Barometric pressure and wind should also be measured in order to control for these factors (**ACTION T-24062020-9)**.
EK: We will look at this, and we've also been talking with your colleague. If you want to speak to an expert on our team, I'm sure that she would be excited to discuss this with you.
SL: I am happy to see that we're going forward with this. Do you think the current design will help us to understand effects associated with the railway? Perhaps we need to capture area along the dogleg.
EK: We think the current baseline sites are already capturing potential railway effects.
SL: This is great.
BS: There is a walrus haulout that is near some of those flights near Steensby.
GM: Baffinland will distribute to the TEWG the 2019 flight tracks near walrus haulout in Steensby split by month, as done previously with 2018 data. **(ACTION T-24062020-10)**

*****ACTIONS*****

6. **Baffinland** to provide a figure showing potential locations for dustfall sampling for deviations of rail line.
7. **Baffinland** to continue pursuing discussions with **NRCan** regarding dust monitoring techniques.
8. **Baffinland** will explore the potential for Site Environment staff to track animal sightings in consideration of observer effort in 2020.
9. **Baffinland** to consider other sources of noise such as wind speed in order to control for these factors as part of noise analyses.
10. **Baffinland** will distribute to the TEWG the 2019 flight tracks near walrus haulout in Steensby split by month, as done last year with 2018 data.

Caribou Monitoring: Triggers and Strategies
Relevant to Project Certificate Conditions 50, 51, 53, 54, 57, 58

EM: Work has been proposed by GN (John Ringrose) but no regional work is being completed in 2020.
BP: We have to postpone everything because of pilot quarantines, etc.
EM: In light of that, we've been working on a project to try to better understand what types of project monitoring may be best for future. For those on the phone, we're in preliminary stages with this study. We want feedback from the TEWG on this approach. We hope to use this as an opportunity for brainstorming with the group. We can have a secondary call once people are better informed.
Study Background - Slide 2
EM: GP and KBa from EDI are on the call. Graeme is presenting.
Graeme: Current densities are too low to detect Project effects. This has limited the type of work that can be done.
Study Objectives - Slide 3
GP: The overall objective of this study is to develop quantitative triggers for caribou monitoring.
Meeting Objectives - Slide 4
GP: The goal is to get your feedback early in our work, and then move forward.
Study rationale and Challenges - Slide 5
GP: Current options are limited because of current state of caribou on Baffin Island. Replication methods at other NU mining are not relevant because of density differences. The Terrestrial Environment Monitoring and Management Plan does not define triggers for implementation of different monitoring methods.
Solution - Slide 6
GP: We have reviewed monitoring options, provide power analyses based on available information.
TEMMP Monitoring Framework - Slide 7
GP: This is a questions-based study. What are the effects of the mine on caribou?
TEWG Impact Monitoring Study Input - Slide 8
EM: We require your input to help assist us with focusing our work.
North Baffin Island (sub)population - Slide 9
GP: Currently at the trough of a possible 60-80-year population cycle. This is premised off of IQ and current population levels versus some recent highs. The Northern population is somewhat distinct. Recent collaring data indicates a very individual home range occupancy and fidelity. They are less gregarious and non-migratory, sedentary caribou. i.e., limited movements < 4km/day. In 2014, 63 caribou were observed, where 49 were in Mary River Stratum. Small groups in low densities. There is an estimated total of 315 caribou in the North Baffin population. The GN aerial survey conducted in 2017 observed 230 caribous.
Slide 10
GP: This is a simple kernel density estimate (KDE) for 4 VHF collared caribou. 1988 to 1993. 95% KD seasonal range. When caribou were in peak abundance. There has been some movement, as well as have been a change in the seasonal ranges. Fairly concentrated calving. More movement during the spring migration, consistent with migratory herds on mainland.
Slide 11
GP: This is another KDE. These data are representative of 31 animals between 2008 and 2011. There were 11 animals with a GPS. As you can see, the seasonal ranges are more confined.
Slide 12
GP: There has been a big change in caribou ecology in this area.
Ecological Context - Slide 13
GP: North Baffin Island caribou has changed over time – they now have contracted ranges and restricted movements. Need to consider this when building studies.
Impact Monitoring Study - Slide 14
GP: This slide highlights current options being evaluated (i.e. control-impact study design; GPS collars; camera traps; assumptions data and IQ driven). We need to understand the caribou ecology we will be investigating.
Study Design- Slide 15
GP: here is a high-level breakdown of the study designs being looked at.
Methods to Quantify Zone of Influence (ZOI) and Crossings - Slide 16
GP: Monitoring options are limited because of low caribou densities. There are currently 4 monitoring approaches we are considering: ground surveys, aerial surveys, GPS collaring, and motion-triggered camera traps.

Ground Surveys - Slide 17
GP: These are equivalent to Height of Land, crossings along roads, etc. There are pros and cons to study design. Good for crossing sites, but there is limited coverage for what you can see. Such surveys make a lot of sense if you are looking to assess impact only, and they are also site-specific. They are good habitat models; however, they can also prove highly time consuming.
Aerial Survey - Slide 18
GP: this slide outlines the pros and cons of aerial surveys. There is sightability bias, and if they are conducted frequently, they can be disruptive to caribou.
GPS Collaring - Slide 19
GP: A positive with this method is that it has been extensively used for the Zone of Influence (ZOI), and has an established movement analyses as well as is rapidly evolving. We like the collaring because you can use it to answer multiple questions, e.g., home range, habitat ZOI and influence with the same sampling method. There are many collaring options available too. For instance, geofencing - If caribou gets close enough to a polygon, data will be collected more frequently. There are also a few cons associated with this method. For instance, it is very expensive. With low number of caribou, there is the potential for independent animals. We may be collaring single animals (not population observations). This method is also invasive, and technical issues can be observed, such as failed collars.
Motion-triggered Camera Traps - slide 20
GP: Motion-triggered camera traps. Methods have been evolving quickly. They are completely non-invasive. Some positives associated with this method include: it allows for stratified random sampling; continuous data collection; and there are methods to estimate intensity of use. We've seen this elsewhere. Some cons include: detection errors (only capture up to a certain distance) limited by focal angle of photograph; they are better for site-specific features. E.g., are animals using trail to cross road at low densities; not great for movement; requires many cameras - high density – 60-100 cameras are required in a study area; shear logistical, time and cost issues; impractical for large scale surveillance; and there is a trade-off between high and low density. If densities increase, you can do more reasonable sampling. But with current densities, it could be decades before they return.
Next Steps - Slide 22
GP: We need to complete detailed analyses on historic telemetry data. We will run a power analysis simulation of selected options(s) addressing ZOI and crossings.
GP: We need to not work blindly when densities are low. We are moving towards collaring data and a control impact study. We are hoping that with increasing densities, that it may increase the potential for the project to interact with the project.
Timeline - Slide 23
GP: The timeline has been adjusted slightly as shown here.
MS: We need your input to start planning for when caribou may return. When is the right time, and what is the right study?
PS: The challenge is that collars are typically so few. It will be hard to get the animals that may actually use the area until the densities increase.
MS: This is exactly what happened in 2008-2011. See slide 12. The GN went out collaring. We collared a lot of animals that didn't even interact with the Project area. We could be collaring animals that will not be in the Project area.
KBa: All of the options are limited by the caribou.
PS: The challenge is I don't know what the 2009 data will provide. The baseline data suggests behaviours you won't expect in future behaviours. You are going to be stuck with data that is inconvenient.
KBa: If there is already some kind of avoidance behaviour prior to Project, we may be able to look at other factors on what may result on caribou avoidance.
MS: The baseline data is not just collaring data. Our strongest data is the community knowledge. The caribou rotated from the south in the 1960s into Milne Inlet, but then the bulk of herd moved over to Clyde River. The main herd had already moved out of the area before we had even started any work. The bulk of the baseline, the main herd, had already left that area probably 8 or 9 years prior to any exploration activity.
GP: There are caribou that do overlap the project area. They show similar movements, but there is overlap. It's mostly the southern.

SL: Can you clarify what you mean about similar movements?
GP: The recent collaring data does not show the same extent.
MS: All of the baseline data would have shown this, including for Phase 2. Slide 11 shows all estimates – kernel density estimates. There is an interaction to some extent with the Project. If you look at specific individuals, it is a significant change from early movement.
SL: I would like to spend some time looking through what you've provided and the historical baseline data. It is really interesting to think how the ecology of the herd changes, depending on how many there are and then how do you design the monitoring program that can pick up effects? We don't have good western science data on what happened before when the herd was large in the past. If I recall looking at the early reports, there were differences between the northern and southern parts of North Baffin Island. We need to consider this if the numbers increase. I don't see a better option to collaring. Average group size is 7? How many groups? How many do you need to tag? Should we look at Boreal caribou to see how we could move forward? This is very invasive. From the data perspective on the western side, I don't see a better way. From the IQ side, we hear caribou avoidance on the Mine Site, but we don't have a way of capturing this right now. I would hope that this is something we can address through complimentary monitoring. My first reaction on science for regional size assessment, I don't see a better way of getting good data based on the constraints that are in place. I heard that before and after effects are ideal, but I just don't know where we will get before impact data for the entire operations. There is opportunity should Phase 2 go ahead, we could get pre-impact data but it's only during the low population cycle. Unless we look at IQ as a separate complimentary stream, I don't see how we could get how movements were like in the past.
KBa: We do know that the southern portion of the footprint has no development. So we do have something to provide on the southern route. Obviously, only during lower density period, but there is no data for higher density periods.
SL: I do remember reading that there were differences in the southern portion of the route. Does anyone else have any information on that?
GP: The habitats are very different from north to south. Even looking at the worn in trails, it looks like it's a clear migratory path, when trails start growing over the trails, that's when you know the caribou will come back. You don't see those trails north of the mine site. There may even be different caribou coming into the north (mainland have eyelashes). There is a very different movement ecology in the North.
SL: I remember thinking this is not clear. And something to think about for this design. I think camera traps are useful as a local monitoring method to look at how well crossing structures are working. But I don't see them for regional.
HB: You will not get the same value on a camera trap for large scale study.
MS: We are pretty sure we will use camera traps for crossing embankments for site-specific impact studies along the rail. But in combination with the collaring program. If we did a camera program, we're also looking at a lot more of more flying around and then creating an impact in changing the memory cards.
SL: Either way we're going to have a potential impact. In terms of ground surveys, there has been some good work done on pellet surveys for population estimates, but again in terms of access, that would create a lot of disturbance. So there is a bit of a trade-off to have people live on the land and walk transects.
PS: The observational indices are good indicators. In terms of measuring abundance over time, there should be strong support for observational indices given the low density. Once there are lots of caribou. That will be different. Has there been a community request for this? I don't understand why this is being done, this should be down the road.
MS: You are making a good point. We are being criticized for not doing enough. We have a term and condition for supporting regional programs. We have to develop a Memorandum of Understanding with the GN to support collaring programs (under review). The idea is that we don't want to do this blindly. It is coming out of mostly this group, and most recently during Phase 2-related caribou meetings. We have been saying we will do more when there are more caribou to monitor. So the work by KBa and GP is to assess when *can we* start doing work. If we actively start to find them, what data will we garner? The questions is feedback. We heard this should be done in the future. If we are going to invest now, what can we do?

PS: For one, if you collar for 20 years, you may have more data. I need to better understand the specific pressures, and how much the mine is supposed to invest is a political discussion. If we want to look at how caribou are being impacted by the road, then we look at other mine sites and then adjust to Mary River mitigation.
KBa: This study is to start planning for the future. We know they don't act the same as mainland Nunavut and anywhere else in Nunavut. We are adapting an approach where caribou ecology is very different and pre-emptively assumes the same kind of effect. We want to understand what study we may need to do based on the effect we may need to do, and then work our way back to see what we need to do as part of the surveillance study.
PS: These power analyses are not very good, and they can give you whatever answer you want based on the factors. I don't think you're going to get the answers from the power analyses. What are the mitigation processes that will be applied? I'm assuming that the mitigation measures are already in place. I'm confused about what we're trying to do other than better understanding better caribou behaviour.
GP: As part of the Environmental Assessment, we had identified the potential ZOI. So this work would help to inform the predicted effects that were considered non-significant to the caribou population. With the movement portion of potential effects, for trail crossings, there is a 10% reduction. We could compare effect sizes to what we could potentially see.
PS: I need specific questions for me to be able to comment on this meaningfully.
EM: One key thing to consider right now is that there are no MHTO members that could join today. They are a critical voice in this conversation particularly on the pursuit of a collaring program. I'm going to raise that this is not conclusive right now.
PS: What I'm hearing is you need specifics before you even provide comment.
EM: KB and GP - what key questions are we looking to answer? We're trying to move aggressively on this schedule but adding more time to get grounded feedback would be worthwhile. These are the action items that I will take away. BP can you get insight from your local biologist (GN; John Ringrose) in a secondary discussion? **ACTION T-24062020-11).** AHM - we should work to have MHTO involved. **(ACTION T-24062020-12)**
PS: We need to see what you're trying to do, specific questions.
GP: I take it as step forward into a more technical discussion.
MS: We can go beyond to do more surveys and get to asking the right questions, and then doing the right surveys to answer the right questions and then doing them at the right time, rather than doing them for the sake of doing them.
EM: Yes. I have noted some follow-up action items.
EM: As I mentioned, we have other follow-ups, we will provide updates as they become more flushed out. And other additional updates for desktop, secondary investigation for stockpile investigation.
SL: Are you capturing the dustfall samplers?
EM: You said you would reach out to the GN to further discuss. We will internally speak with EDI on what is captured as part of the program.
BP: Yes, Susan - please reach out to us. We are interested in what you want to put forward – please put together a formal written request on this.
EM: The other thing to flag, we will aim to have the final 2019 terrestrial report with responses. I do have the final version and responses to final comments with translations, there are delays but these will be provided as part of this.

*****ACTIONS*****

11. **GN (BP)** to get insight from local biologist on specific questions that may need answering re. caribou behaviour, distribution, etc.
12. **MHTO** technical advisor (AMH) to get additional insight from MHTO members on the "what was heard" re. caribou triggers.

Tables that follow provide summary of: i) action items from current; ii) status update on action items from previous February 26, 2020; (iii) October 7, 2019; (iv) June 20, 2019; and iv) April 24, 2019 meetings.

Table 1. Summary of action items from June 24, 2020 TEWG Meeting:

#	Action	Action By	Status Update
1	**Baffinland** to provide an update on the amount of Dust Stop® ordered for 2020.	Baffinland	Completed. Baffinland ordered 654 m^3 for 2020.
2	**Baffinland** will develop a tracking table that includes formal recommendations made by members of the TEWG should they be submitted.	Baffinland	In Progress. Development of table remains under consideration. No formal recommendations have been submitted.
3	**Baffinland** to consider holding a future engagement session on potential identification of migratory bird concentrations.	Baffinland	Not Yet Started. Baffinland will plan to have an agenda item dedicated to this item as part of a future TEWG meeting.
4	**ECCC-CWS** (PS) to follow-up internally on how the flight height guidance was developed.	Baffinland	Not yet started. Baffinland will modify status based on input from ECCC-CWS following review of draft minutes.
5	**Baffinland** to share copy of guidelines provided to helicopter pilots and passengers with regard to flight height guidance.	Baffinland	In progress. As part of a future TEWG meeting, Baffinland will discuss the various elements of the guidelines shared with pilots in advance of the upcoming 2021 field season.
6	**Baffinland** to provide a figure showing potential locations for dustfall sampling for deviations of rail line.	Baffinland	Completed. As part of the December 10, 2020 TEWG, Baffinland shared and discussed proposed sampling locations for additional dustfall samplers.
7	**Baffinland** to continue pursuing discussions with **NRCan** regarding dust monitoring techniques.	Baffinland/NRCan	In progress. As part of the December 10, 2020 TEWG meeting agenda, NRCan planned to present their research that is relevant to dust monitoring, however due to delays in the meeting schedule, the agenda item will be moved to a future TEWG meeting (TBD).
8	**Baffinland** will explore the potential for Site Environment staff to track animal sightings in consideration of observer effort in 2020.	Baffinland	Completed. Baffinland Site Environment staff concluded that it is not feasible to adequately track observer effort. However, as part of this initiative, all of the environmental field staff are now provided incidental wildlife sighting sheets to improve tracking processes.
9	**Baffinland** to consider other sources of noise such as wind speed in order to control for these factors as part of noise analyses.	Baffinland	Completed. Analyses completed as part of pilot noise study considered other sources of noise by identifying wind sound signatures in recordings. Specific details on the analysis will be provided as part of the draft 2020 Terrestrial Environmental Annual Monitoring Report.
10	**Baffinland** will distribute to the TEWG the 2019 flight tracks near walrus haulout in Steensby split by	Baffinland	Completed. Baffinland provided the 2019 flight tracks near walrus haulout in Steensby split by month as part of 2019 Annual Report to NIRB comment response

	month, as done last year with 2018 data.		from QIA 2019 AMR M&AE #15 (map provided in Attachment 2).
11	**GN (BP)** to get insight from local biologist on specific questions that may need answering re. caribou behaviour, distribution, etc.	GN	In progress. GN biologist (John Ringrose) was able to join the December 2020 call and provide some feedback, however additional targeted discussions will need to continue into 2021 once data from the caribou monitoring analysis (triggers and strategies) is shared with the TEWG for feedback.
12	**MHTO** technical advisor (AMH) to get additional insight from MHTO members on the "what was heard" re. caribou triggers.	MHTO	In progress. No additional feedback was brought forward following the meeting, however MHTO was present during the December 2020 call and was able to provide some comments on the progress. Additional discussions will need to continue into 2021.

Table 2. Summary of action items from February 26, 2020 TEWG Meeting:

#	Action	Action By	Status Update
1	**GN** to distribute to TEWG members the latest draft of ToR showing track changes.	GN/All	Completed. GN distributed a draft version to MEWG members for comment on March 9, 2020. Comments were by various agencies by April 17, 2020. Baffinland provided an updated version (May 7, 2020) and these were discussed during a follow-up working session on May 8, 2020. Subsequently, Baffinland submitted to the NIRB on October 16, 2020 an updated version and this included consideration of all feedback received during the various working sessions and comment review periods.
5	**Baffinland** to provide follow-up on concern from MHTO on asbestos.	Baffinland	Completed. As part of Baffinland's Technical Comment Response HC-7 related to Human Health and Exposure Potential Assessment from March 25, 2019 related to the Phase 2 proposal (NIRB Doc. No. 323801, including reference to "Appendix 5, HC-7 Attachment 1: Certificate of Analysis Bulk Asbestos") on page 86 of PDF, it is noted that based on the various drill campaigns and samples submitted for analysis, the material is rare across the Mine Site. With respect to encountering asbestos along the proposed North Railway, "the likelihood is remote as the bulk of the rail route is focused across an area that is underlain by much younger age rocks and as such do not contain the rock types in which asbestos would occur".
6	**NRCan** to follow up with their dustfall expert with regards to the appropriateness of installing dustfall samplers at 1 m (non-standardized method) versus 2 m (approved standardized across jurisdictions).	NRCan	Completed. Initial call to discuss options with NRCan held in June 2020 to assess feasibility of using satellite imagery to assess extent of dustfall. Updates will be provided following further engagement and are captured as part of current meeting's Action T-24062020-7.

7	**Baffinland** to consider installing dustfall samplers at an alternative height (e.g., 0.5 m or 1 m) for a subset of locations once TEWG members provide scientific support (weight of evidence) for doing so.	Baffinland/TEWG	In progress. Action requires additional information from TEWG members for consideration by Baffinland before proceeding. It is also noted that Baffinland has added satellite imagery analysis to better assess dustfall extent. Results will be provided as part of 2020 terrestrial environment annual reporting efforts.
8	**EDI/Baffinland** to consider reporting additional details regarding no. helicopter flights per year, no. low level flights and associated compliance including reasoning.	EDI/Baffinland	Completed. Baffinland will provide an update on additional analysis on helicopter overflight data during the June 24 2020 TEWG meeting.
9	**Baffinland** to further consider concerns raised by MHTO regarding extent of red dust on snow during the winter.	Baffinland	Completed. Initial call to discuss options with NRCan held in June 2020 to assess feasibility of using satellite imagery to assess extent of dustfall. Updates will be provided following further engagement.
10	**Baffinland** to schedule next TEWG in-person meeting prior to start of 2020 field season.	Baffinland	Completed. In-person meeting was replaced by teleconference format and set for June 24 2020.

Table 3. Summary of action items from June 20, 2019 TEWG Meeting:

#	Action	Action By	Status Update
3	Baffinland to include a section in future monitoring reports on the "Use of Community Input and IQ (or Inuit Perspectives) in the monitoring program.	Baffinland	Completed. Baffinland summarized relevant information available for each program component in the 2019 Terrestrial Environment Annual Monitoring Report.
4	Baffinland may consider completing fox den surveys as part of the Arctic Raptor monitoring program for 2019.	Baffinland	Completed. Terrestrial program was already expanded in 2019 to include avian distance surveys, raptor productivity and occupancy, winter nest counts and small mammal trapping for rough legged hawk survey. Could be further discussed with TEWG as part of future program design when it becomes relevant to do so.
6	EDI to discuss with NRCan other dustfall monitoring programs occurring in the region and use of alternative tools for conducting dustfall sampling.	EDI/Baffinland	Completed. Initial call to discuss options with NRCan held in June 2020. Updates will be provided following further engagement.
9	Baffinland Site Environment team to consider revising hunter/site access protocol to ask hunters who come to site if they are amenable to participate in mapping caribou migration routes and travel paths to develop a more comprehensive database of this information.	Baffinland	In progress. Baffinland will discuss this request with the MHTO to better understand the possibility for moving ahead with this request. In the meantime, any input from the MHTO is welcomed as part of the review of these meeting minutes.

Table 4. Summary of action items update from April 24, 2019 TEWG Meeting

	Outstanding Action Item from April 2019 TEWG Meeting	Action By	Update
1	GN to provide a copy of summary report on caribou composition surveys throughout Baffinland Island from 2015 to 2018 at the request of QIA.	GN	Completed. The report is available online at: https://www.nwmb.com/en/funding/nunavut-wildlife-research-trust/reports/2017-6/2-17-11-central-baffin-island-caribou-spring-composition-survey/7385-baffin-island-caribou-composition-summary-report-2015-2018/file

Name: Chris Spencer

Agency / Organization: Qikiqtani Inuit Association

Date of Comment Submission: 12 April 2021

#	Document Name	Section Reference	Comment	Baffinland Response
1	A.1 June 24 2020_TEWG Meeting No. 22 Minutes_Draft	General	It is QIA's expectation that draft TEWG minutes be provided to participants in a timely manner (i.e., 2-3 weeks), to allow for effective review. Any delays in submission of draft minutes should be clearly communicated to all Working Group members so that technical experts can adjust schedules as needed. These draft minutes for the June 2020 TEWG conference call have been provided ca. 10 months post-meeting. Due to the lateness of the submission of these draft minutes, and other priorities, QIA will not be submitting detailed review comments. We recommend that the Proponent make all possible efforts for timely submission, and clearly communicate any anticipated delays in doing so.	Thank you for your comment. Baffinland acknowledges that these minutes were provided later than usual and will make best efforts in the future to distribute draft minutes to obtain feedback from the TEWG in a timelier manner. It is noted that since March 2020, Baffinland has faced numerous challenges related to the global COVID-19 pandemic, which as of April 2021, is still ongoing. Accordingly, this has resulted in the reprioritization of certain activities in order to ensure the health and safety, including the wellbeing, of its employees and contractors, who have had to constantly adapt to changing conditions. Activities such as coordinating and completing environmental effects monitoring programs safely rather than cancelling programs in the context of a global pandemic required greater time and effort during implementation, and accordingly such activities were prioritized over others due to their importance. Furthermore, as can be seen in the action tracker, Baffinland placed greater value on completing actions identified during these

#	Document Name	Section Reference	Comment	Baffinland Response
				meetings, and accordingly was able to demonstrate progress towards these actions. Baffinland notes that it did not receive any request from the working group members asking when these would be made available. As part of its 2020 annual reporting efforts to the NIRB, Baffinland will be providing a summary of the challenges it faced related to the COVID-19 pandemic, and the solutions that were implemented in order to continue operating responsibly during a global pandemic.

Baffinland

Name: Krupesh Patel

Agency / Organization: ECCC

Date of Comment Submission: April 8, 2021

#	Document Name	Section Reference	Comment	Baffinland Response
2	A.1 June 24 2020_TEWG meeting No. 22 Minutes_Draft	2020 Terrestrial Monitoring Program Overview – 2020 Monitoring; Birds – Slide 14	Regarding the following comment; KP: One point to add, clarification. I definitely am not recommend doing this in 2020 - we would recommend doing the Red Knot surveys along the Southern route. This should be discontinued along the Northern route; however, once activities ramp up in Southern route, we would recommend reinitiating the surveys in the Southern route habitat. We would leave it up to you to decide when that's best to do this. Please edit to the following to make it more clear; KP: one point to add for clarification. Although we agree that Red Knot surveys are not required in 2020 for the northern route, we would continue to recommend they be done along the Southern route once activities ramp up in those areas.	Comment has been noted and changed accordingly.

Terrestrial Environment Working Group (TEWG) Draft Meeting 22 Minutes

Date: December 10, 2020
1:00 pm – 4:30 pm (EST)

From a **Computer (PC/Mac)** or **a Smartphone/Tablet (iOS-Android)**, click the following link :
https://cms.baffinland.com/invited.sf?id=064701805&secret=3rqNSk7iCqrsfVLhdIwrOg
From a **phone**, dial +14168142855, and enter the meeting ID (064701805)

Member Organization	Participants	Member Organization	Participants
Baffinland Iron Mines Corporation (Baffinland)	Genevieve Morinville (GM) – (Y)	Qikiqtani Inuit Association (QIA) and Consultants	Jeff Higdon (JH) – (Y)
			Chris Spencer (CS) – (N)
	Emma Malcolm (EM) – (Y)		Bruce Stewart (BS) – (Y)
			Susan Leech (SL) – (Y)
	Connor Devereaux (CD) – (Y)	**Observer Organization**	**Participants**
	Kendra Button (KB) – (Y)	Canadian Northern Economic Development Agency (CANNOR)	Arusa Shafi (ASh) – (Y)
			Adrian Paradis (AP) – (N)
		Natural Resources Canada (NRCan)	Peter Unger (PU) – (Y)
		World Wildlife Fund – Canada (WWF)	Andrew Dumbrill (AD) – (N)
Mittimatalik Hunters and Trappers Organization (MHTO)	Eric Ootoovak (EO) - (Y)		Brandon Laforest (BL) – (N)
	Enookie Inuarak (EI) – (N)	Nunavut Impact Review Board (NIRB)	Solomon Amuno (SA1) – (N)
	Amanda Hanson-Main (AHM) – (Y)		Cory Barker (CB) – (Y)
Environment and Climate Change Canada (ECCC)	Krupesh Patel (KP) – (Y)	**Baffinland Consultants**	**Participants**
	Paul Smith (PS) – (Y)	Environmental Dynamics Inc. (EDI)	Kerman Bajina (KBa) – (Y)
	Anna Graham (AG) – (N)		Mike Setterington (MS) – (Y)
			Elaine Kennedy (EK) - (Y)
Government of Nunavut (GN) and Consultants	Brad Pirie (BP) – (Y)		Graeme Pelchat (GP) – (Y)
	John Ringrose (JR) – (Y)		
	Natalie O'Grady (NO) – (N)		Lyndsay Doetzel (LG) – (Y)
	Stephen Atkinson (SA) – (N)		

Agenda

Time	Activity
1:00pm – 1:10pm	Welcome and Rollcall
1:10pm – 1:30pm	Baffinland Update • 2020 Operational Update
1:30pm – 2:00pm	2020 Monitoring Program Update
2:00pm – 3:00pm	Caribou Monitoring Trigger and Strategies
3:00pm – 3:15pm	Health Break
3:15pm – 4:15pm	NRCan - Dustfall Monitoring
4:15pm – 4:30pm	Action Item Review

Discussion and Comments
Baffinland Update – 2020 Operational Update
Baffinland (GM) welcomes all participants from member and observer organizations.
CD: Target this year was 6 million tons, as Dec. 9th we are at 5,680,000 million tones hauled to date; shipping season for 2020 has closed and we hauled 5.5 million tones. CD: Site dust suppression measures has been a priority for Baffinland; use of water calcium chloride on roads, installation of coverings on ore crushers, improved methods of transferring ore onto stockpiles decreasing the drop distance. Continued evaluation of new dust suppressants, technologies and equipment retrofits to reduce dust emissions. DusTreat product at Milne Port Ore stockpile and Dust Stop application on the Tote Road. Over the past 2 years we've been looking at a variety of options to control the dust. Based on what has been proven at other operations and achievable to adapt to our conditions. We've implemented a trial application in December 2020 at site now, a product called DusTreat which is used at other iron ore operations. It is a non-toxic, non-water based, rain resistant substance that coats the outside of the stock piles and acts as a sealant to prevent lift-off of dust from the stock pile. We are working with QIA and MHTO on various monitoring options to evaluate the effectiveness of the product. The Dust Stop® product has been applied to the Tote Road in 2020. It was approved by the government of Nunavut for application on unpaved roadways. We trialed this product in 2019 and initial observations found it effective. We applied this product to the entire length of the Tote Road (100 km). We are evaluating the effectiveness of this product currently. From the feedback from members at the TEWG working group, we evaluated installation of some passive dustfall monitoring stations along the railway at 30 meters and 100 meter distances, similar to our Tote Road program. We have procured the supplies required for this installation and are prepared to implement. At this point we are seeking feedback from the working group members and will be reaching out directly to QIA and MHTO to finalize and confirm the exact location. We will have an opportunity at the end of December or early January to install this equipment after receiving the feedback. PS: What is the chemical composition of DusTreat? CD: There are 2 products. Where this product is added we have water management surrounding the entire facility, ditches where the water will accumulate and it is tested prior to discharge. I will send you the chemical names of what it is made of. It forms a solid crust. **(ACTION T-10122020-1)** BS: Can you circulate the data when you have it please. SL: Can you explain how you selected the monitoring sites for the railway. CD: QIA & MITA were looking for guidance on where those will be installed. We went out to see what was feasible, access year round as this is one of the constrains. Moving it along closer to the south, back to Km. 80 as a reference

point on our Tote Road, we have access to that area. The feedback from the members would dictate exactly where it would be along the rail line.
SL: So those sites on the map are tentative accessible, not yet confirmed?
LD: Most of these sites are all existing sites along the road, for the most part the railway follows the road. We were trying to collect data as far from the road as we can. These are the sites that we have the best chance for measuring background for this year and then what kind of dustfall is only associated with railroad opposed to road traffic at the same time. These site are for discussion purpose as far from the road as we could be. It will be up to Connor to find the best sites based on accessibility perspective. Please let us know if you have any thoughts on this. **(ACTION T-10122020-2**)
SL: There is one site along the deviation?
LD: There are actually 4. We want to compare this to what we want to see on the road. We want to look at the dustfall at 30 m and 100 m from the railway bed for statistical comparison for dust produced by the railway, compared to dust by the Tote Road.
SL: So 4 stations of 1 location.
LD: Yes
SL: Is that enough to capture the baseline? The other sites you are already monitoring are you going to put this similar array corresponding to the railway route and as well as the road?
LD: We can look at making some adjustments if we need to. We do our best to get 30 m at 100 m due to topography, as long as it was fairly close to the roadway that shouldn't be a problem.
SL: I understand there will be some logistical issues, as close as you can to make it comparable. I'm wondering if more than 1 baseline station might be worthwhile. There is a mitigation associated, the opportunity to put covers on the ore cars.
GM: Is the concern you are identifying one station that's along proposed rail route where you don't have the road close?
SL: Yes, and I want to ensure we put that station in a place where you're going to capture a potentially high risk area so we understand what the highest risk is and we can think about mitigations based on that. There are other avenues for identifying means for mitigation, but is one station enough? It might be something that we can review in the future.
EM: Can you explain what you mean by high risk?
SL: The point of monitoring the dust is to know if you are getting enough dustfall that will have effects. We want to see the range of dustfall and we want to understand which areas are getting high dustfall so we can ensure we are introducing mitigation based on that.
EM: When you say high risk do you mean area that dust is likely to go the farthest? Is that what you mean?
SL: Yes, or where deposition levels are likely to be the highest. So we are monitoring that and addressing concerns.
EM: LD - in our current data sets, are we already having those trends in spatial areas identified where we are seeing consistently greater deposition along the Tote Road?
LD: Yes, we are able to pick out those points. It depends on how you want to define baseline data; we have quite a bit of data showing us where the dustiest parts are along the Tote Road. We are going baseline from pre-railway to post-railway and we can make valuable comparisons. Therefore, there is a great deal of baseline data collected, it is not background dustfall but it is pre railroad.
GM: The orientation that you are setting up your stations, they have taken into consideration prominent wind direction in the angle where they are placed, to ensure you are measuring where you expect the dust to go?
LD: Yes, we also need to think about how topography might play around. Wind, topography and site access are key elements in picking sites.
CD: Feedback from the last meeting, we selected optimal distance away from the Tote Road. We wanted a baseline of where the railway was and all the other current monitoring data was influenced from the Tote Road. That was part of where this location is.
JR: When selecting the location for the railway I think about dust and the impact of railway versus roads. Are the places that have the highest dust load is that going to be the same for the railway that is high and the same spot for the road that is the highest? Meaning, if you picture a road and railway running beside each other, there might be differences in elevation there might be differences in other factors as Susan mentioned. Are the areas for the railway

and roads in the exact same spot? There might be multiple different aspects with the railway and the road even though they are running adjacent to each other such as a sandy versus a rocky area.
LD: There is going to be significantly less dust off a rail bed than a road as the mechanics are very different. Right now we are seeing an insignificant amount of dust coming off the ore loads on the road as opposed to what is the wheel entrainment with the road. Not sure why we expect there to be an increase in dust off the ore loads on a train car in comparison with a truck load. These are unknown variables that we will be able to pick out once we have some data.
PS: When you imagine trains driving through the country, you don't imagine great plumes of dust behind them. The orientation of the plots proposed seem reasonable.
SL: I would add, the benefit of adding another baseline station (collecting just the dust from railway), then I agree with what PS is saying that you expect dust to be mainly associated with ore coming off the rail cars for the railway. That is one of the benefits of moving to the railway there won't be the same amount of dust from hauling on the road. I would expect we will see a decrease in the dust but not sure what is going to happen with the ore. It is the ore dust that is part of the concerns, we want to ensure we are capturing what is coming from the railway and if the one site in the deviation area happens to be in a low area, you might not get something representative. My suggestion is to have 2 until you see there is no difference between them. In 2-3 years we can eliminate one of them.
PS: Another potential idea would be to have containers of ore measured out precisely that are put on top of a rail car and then measure it again on the other end of a railroad and whatever is not there came out. That would be a compelling argument that would integrate the dust loss over the entire railroad.
EM: This is something that potentially could be considered once we have a live and operational railroad. If Phase 2 is approved the ore that will be hauled by rail will be lump ore versus the fines that we are transporting now. That is one of the reasons we are expecting a reduced loading of dust along the railway as we are moving secondary crushing to Milne Port. Any disagreement expressing here is not about installing additional dustfall collectors, the only consideration is around the accessibility of the site. There is already a robust data set. From our June meeting, I believe the objective was that we wanted an idea if there was never a rail operation in that area of the deviation point, what was the ambient environment. We have the entire data set to compare against and understand what the decrease would be, assuming there is one once we switch to a rail operation.
EO: There is a lot of vibration on a train, more than trucks and I believe that vibration will pour dust all over. Connor, the mine site generates more dust than the Tote Road and Milne Port combined together, I wonder what if this suppressant will be used at the mine site? There is ten times more dust at the mine.
CD: The Mine Site is the most impacted. Some of the mitigations that we have put in place have been ongoing. We apply dust suppressant to our airstrip and we have been looking at increasing the frequency this is applied and a focus around the crusher and the shrouding and the maintenance plans. There have been some improvements, we are constantly working with the operations on the dust production at the mine site. With our Phase 2 proposal we will move the secondary crushing indoors at Milne Port if the proposal is approved.
LD: There is a quite a bit of dust as we expect in some of the areas close to sources like the rail road, the crusher. It is consistent with what we see at the Port; the sources are different. At the Port we are seeing dust blowing off of the stock piles and associated with dust that happens when ore is put on the stock piles. The mine and the port are not the dustiest places; the road produces more dust in comparison.
CD: The product that we are currently trialing at Milne Port, the DusTreat® to cover over our ore stock piles. The crusher stock piles are very transient, so when we stock pile that, it is moved within hours or days, possibly a week. Once the ore is produced it is hauled with the trucks down to Milne Port. Milne Port is where it is stockpiled until our next shipping season in July, that is why we targeted that area with this suppressant.
EO: I was hoping you had other plans to reduce the amount of dust at the Mine Site, it is spreading everywhere. Maybe this is something to look at in the future.

*****ACTIONS*****

1. **Baffinland** (Site Environment) to circulate to Working Group members ECCC-CWS and QIA the data on the chemical composition of DusTreat.
2. **TEWG** members to provide **Baffinland** with feedback regarding sites for dustfall collection.

2020 Terrestrial Monitoring Program Overview

Relevant to Project Certificate Conditions 14a, 32, 34, 36, 37, 38, 50, 53, 54, 57, 58 , 59, 60, 66, 70, 67, 68, 69, 70, 71, 72, 73, 74, 75, 107

EK: Programs include dustfall, vegetation, mammals, bird monitoring; several of the monitoring programs are still in the data collection or analysis phase. Results will be included in the annual report that will come out in the spring next year. Same as last year 39 dustfall collectors distributed at various distances and project areas. Most are changed out monthly, except for the remote sites. Samples are shipped to the lab for analysis. No changes in location for 2020. New analysis introduced in 2020, dustfall extent via satellite imagery analysis. Trace metals monitoring program includes collecting soil and lichen samples from site and analysis for different trace metals that might be deposited in dust. In 2020 we looked at all the same metals as previous years, we increased sample size from 50 to 60 sites. We had collection sites near the mine footprint sites. The other vegetation was for exotic invasive plants. In 2020 this was targeted at one location at effluent outflow site where tomato plans were found in 2019; no new tomato plants were found. Mammal monitoring program – snow track surveys. These are done to assess the wild life response to the Tote Road. The surveyor's record all wildlife tracks that they find. They record if an animal crossed the road, if they travelled along the road or if its path deflected away from the road. They did 5 of these surveys in 2020, 3 this past spring, 2 in October. They also did supplemental observations. If drivers along the Tote Road see a caribou, they notify site environment. This happened in January 2020 on 2 separate days observed around km 94.5 and km 95. Snow bank height monitoring, snow banks are managed along the Tote Road to keep the heights under a meter tall to improve driver visibility and allow caribou and other wildlife to cross the road easily without barriers. This was done once a month from Nov. 2019 to Jan. 2020 and then increased to twice monthly from February onwards. This is performed at 50 locations along the road. One change for 2020 was from visiting repeated km markers they visited random km markers, based on a TEWG recommendation. Height of Land survey monitoring, 21/24 Height of Land stations visited at least twice in 2020, 20 stations visited twice; 3 visited once, 1 visited three times. Total observation time 18.3 hours. Average observation time per station 23.9 minutes. Most sites accessed by helicopter this year. No caribou was observed. New program for 2020 noise monitoring pilot program to examine different noise levels at varying distances from the mine and potential affects for caribou and other wildlife. Set-up 9 noise monitoring stations in June and July. The recordings will be analyzed for sound pressure level patterns. The active migratory bird nest surveys were conducted prior to any land clearing on site. Takes place between May 31 and August 5 during nesting season. They did 13 surveys in 2020 covering 7.08 hectares. Found one snow bunting nest, construction was postponed until chicks fledged. Raptor monitoring was conducted on site this year, 9 years now. This was done by Arctic Raptors Inc. & University of Alberta. They did 3 raptor monitoring survey's in June, July and August. They surveyed 175 nesting sites and found 42 peregrine falcons, 47 rough-legged hawk, 86 empty nesting sites. Helicopter overflights program has been going on for a number of years. We used similar methodology looking at the GPS data from helicopters along with pilot flight tickets to determine compliance with the minimum flight height requirements set-out in project conditions. Additional compliance/flight data requested by TEWG, new analysis uses flight segments instead of only GPS points. Found this easier to map and interpret, results presented in duration or % of total flight time. Will continue to analyze and report on compliance, including pilot rationale via flight tickets in 2020 report.

GM: We were happy to do the programs we could this year, hopefully the COVID-19 challenges will be past us in the new year and we will be able to bring back our Inuit researchers in 2021 that have been working with us in previous years.

BS: Slide 16, I don't see any flights going south to Steensby Inlet. Did you have flights going down there?

EK: This map is just for July, not sure if they were there for other months. Connor do you know if they flew to Steensby this summer?
CD: Yes, it would be similar to 2019, we are just waiting on the data from our contractor and we'll send that over for analysis (**ACTION T-10122020-3)**
GM: BS - in terms of the response in the annual report, we are saying we are capturing and sharing the information as part of the MEWG but we aren't going to officially report as part of the existing active phase of the Project, because we are not operating in Steensby Inlet, however we are happy to share that analysis.
EM: When Steensby is operational. Baffinland summits an annual report to NIRB each year as part of the approval for that program and we provide information on the helicopter overflights specific to the Eqe Bay as part of that report.
SL: Helicopter flights related to compliant versus no compliant and these figures, I can't read the entire legend, I'm curious to separate out flights that are compliant only because the pilot provided an explanation for a non-compliant flight with those that are truly compliant and respected the set-back limits. I believe it was a request of the TEWG.
EK: Yes, it was and I believe we did incorporate in the 2019 Annual Monitoring Report to the NIRB. We will have that for the 2020 report with 3 categories in the text of the report.
SL: The reason we wanted to look at that was we were thinking what other mitigations might be possible to increase compliance based on height threshold. Is there a possibly to look at that detail in an upcoming meeting to have a focus discussion if there are other mitigations we can think about?
EK: The flight height requirements, the flights aren't going to change, we will include the breakdown of pilot rationales to break it down into specific categories such as surveying or low level flying or sampling or low level flying because of weather, or because of slinging. That will give a better idea of why pilots can't meet the height requirements. EM or GM do you have any thoughts on that?
SL: There are various reasons why flights may not achieve the height cut-off, is there any rational for giving a lower threshold guidance for shorter flights that can be met more easily? Is there a middle ground? I understand there are reasons where there are lower flight levels sometimes or why the flight target can't be met. Can we have a closer look at the data so the pilots can achieve a minimum, maximum level?
CD: Most of the operating constraints are around safety, from lift-offs, weather conditions and regulations in terms of slinging, passenger flights.
PS: The issue was we were concerned because the compliance was so low. The suggestions were unreasonable, we were wondering if we could achieve better environmental outcomes by specifying more achievable targets for compliance, lower height flights. The idea was to create guidelines that balance environmental needs with practical reality.
CD: We can take that back to our helicopter contractor and work with them and get their thoughts and circle back with EDI.
GM: We can have a separate agenda item in a future TEWG meeting to discuss this further (**ACTION T-10122020-4)**
EO: The dust collectors, does EDI have other collectors? Some are 2 feet, some 6 feet above the ground? Do you have anything for the ground level? The snow tracks, is there any documentation on how big the caribou is or was? How many have you documented in 2020 for the annual report? The MHTO is concerned about the number of helicopter flights. They seem to be scaring away caribou from our hunting grounds. I want you to limit as much as you can on our hunting grounds.
LD: We sample at 2-meter height because that is the internal dustfall standard methodology we follow. We do monitor at ground level through our testing of lichen. We test the dust that comes off these lichen samples and potential containments that rinse off. It gives us a measure of what we are seeing in that dust. We get the dustfall that travels from Site in the air. The higher it is the further it travels and we are trying to capture it. We hope the satellite imagery will help as well.
CD: This caribou sighting was reported by our road maintenance department to dispatch and they called the Site Environment Department. We sent out a technician they mapped out the tracks and created this figure. We have dimensions of the track I would need to review our data. There were observations of the caribou quite some distance from the Tote Road around Km 94. When we are doing the snow track surveys at Site, all observations of animals are recorded in a data base and there are sheets around our buildings where employees can record observations as well as the environmental staff.

EO: I remember a lost calf running around your Tote Road area that was motherless and lost.
CD: Offline if you can provide some details we can look into that. From our reporting data base, we don't have record of that in 2020 and we do talk to some of the hunters that pass through. That is valuable information if you are able to share with us we will look into it. (**ACTION T-10122020-5)**
GM: The use of helicopters - we are taking that information back with us, your point it noted.
SL: Land surveys, did we integrate any of the suggestions made from the last meeting with independent observers? Invasive plants – did you only monitor that one site or a scan for other invasive plants? Do you have any results yet from the noise monitoring?
GM: Regarding the noise monitoring we are still in the data processing phase; results will be available with 2020 annual reporting. Height of Land (HOL) surveys were completed in June, thus by then the HOL surveys were completed. We were not able to bring in Inuit survey staff this year due to COVID-19 restrictions. Your comment is noted for next year. Any data related to invasive plants, in 2019 we did an entire survey that is typically done every 3-5 years. This invasive species component was a follow up because we identified the tomato plants and we wanted to ensure it wasn't an ongoing issue and we confirmed that it wasn't.
SL: I remember there were issues with the vegetation site potentially being wetter than the sites along the road. Did that get sorted out?
EK: That is part of the analysis sampling we ran from last year. We looked at soil moisture and we incorporated that into the analysis. I believe she found it did not have an effect on the reference sites. I believe she clarified that with Paul.
PS: Yes, she did follow up with me about the analysis and made some changes in response to our discussions. I don't recall exactly what it was.

*****ACTIONS*****

3. **Baffinland** to provide **TEWG** members the data/analysis from helicopter contractor for review.
4. **Baffinland** to include an agenda item on the practical realities of helicopter flight requirements and constraints as part of a future TEWG meeting agenda item**.**
5. **MHTO** to provide any additional information on caribou possibly interacting with the Tote Road including dates on which these observations were made.

Caribou Monitoring: Triggers and Strategies
Relevant to Project Certificate Conditions 50, 51, 53, 54, 57, 58

Meeting Objectives – Slides 2 - 4
MS: Working on project since 2007, focus on caribou. Project objectives, how does caribou movement change, specifically crossing the road and rail. What with the effect of indirect habitat loss from the project? The study is informed by QIA and results from previous collaring studies with GN in late 1980s collaring data and 2008-2011 Baffinland study. We are looking for the input from working group to give understanding of the study approach, specific study areas, required density that will require further study, and we need about 350 caribou in both northern and south study areas. We will need about 35 collared caribou per year to conduct a study. Caribou movement is a key part of the study and impact monitoring. It will become more important when the caribou density increases, as the elders say, when the big heard comes back, migratory movement. We will show you the work to help predict when that will happen based on the study. It is important to have the migratory movement so we can repeat studies seen elsewhere. We need the caribou interacting within the study area. The current density of caribou is too low for an effective impact study. Monitoring to date has been focused on further understanding of caribou behavior through traditional knowledge studies and through our reconnaissance data through ground-based surveys. The focus is, "when will Baffinland be able to study project effects on caribou?"
Slides 5 - 17

GP: Slide 5 discusses the structure of the mitigation and monitoring plan. There are 3 different categories of the study. Baseline study include items where there is information missing on caribou but may not be directly related to Project-related impacts. Surveillance monitoring collects relative information that allows Baffinland to mitigate and manage impacts that interact with the project. Surveillance monitoring does not collect data beyond the project footprint. This is currently being conducted at Mary River. The focus of our work is the impact monitoring study which the potential of studying on caribou. They are mostly beyond the project footprint. Both the surveillance monitoring and impact monitoring form mitigation but in different ways and neither replaces the need for the other. North Baffin caribou are cyclical and are at a low, in a 60-year population cycle. The estimate is 315 caribou with 224 in the Mary River stratum, 5.7 caribou/1,000 km (square); Density on North Baffin is very low to mainland herds. The 2008-2011 collar data showed caribou that didn't move much from the caribou range. We were tasked to determine the number of caribou that would trigger an impact study that would address the key questions that were presented at the previous TEWG meeting. Changes in caribou movement, specifically across road and railway. Indirect habitat loss from project disturbance. At the last meeting we reviewed options for reviewing collaring data and different study designs. It was generally agreed that the GPS collaring program was the best data method. Once you decide the number of collars per year and the spatial distribution of these collars to be sampled. Quantitative approach used elsewhere is the biased-correlated random walk. Used to quantify potentially important changes in movement: (i) how many days it takes to cross a feature, (ii) date of crossing infrastructure. Assumes caribou need to cross to access seasonal parts of their range (i.e., they are on a migratory movement). We reviewed the 2008-11 collar data and we expected changes in movement relative to project footprints, consider the ecological link to movement. Looking at the data it was clear there were differences in caribou behavior. We see differences in movements among different caribou. For example, some caribou shows migratory movement and other more nomadic type movement and others limited movement, resident caribou. The classification of movement is interesting because we see caribou change by movement types. The migrant caribou start at the southern part and move north across Milne to Tote Road and spent the summer north of the Tote Road and in the fall crossed back the Tote Road and went back to the same location for the winter. The nomadic started in the northwest and moved down to the Rowley River and then moved along the river for a period of time. The resident spent the entire year at the same location. The individual variation and movement in years, means we don't see enough consistent migration to start studying the impact of the project on caribou movements. How many collared caribou do we need? Required start and destination, so the method is not applicable until caribou destinations are more predictable. We expect the caribou to migrate again once the densities increase. Based on recent studies elsewhere we see sample sizes around 15-20 caribou interacting with the structure. Until there is predictable migratory movement the focus of the impact monitoring study will need to be indirect habitat loss.

<u>Indirect Habitat Loss – Slide 18</u>

KB: Key question is related indirect habitat loss, zone of influence. Avoidance behavior near disturbance that makes habitat less desirable for caribou. We need a study specific to North Baffin land caribou. Based on ecology of local caribou and other studies, the most likely potential effect is avoidance due to sensory disturbance. We need to determine how many caribou we need to study, when and how to conduct the study. Effective habitat is proportional to perceived quality of the habitat. Base habitat vs. disturbance model. Next step was, use existing data to inform the design of an Impact Monitoring study that will quantify indirect habitat loss. We used historical collar data (2008-11) to quantify indirect habitat loss. Use this data with two specific goals (1) determine the influence of (biased) sampling and study design (2) find the sample size that reduces variation in estimated effects. Key message, an impact study that will improve mitigation. We conducted a study of indirect habitat loss.

<u>Slides 19 - 25</u>

KB: Key message is we can't just collar caribou anywhere on North Baffin land. It must occur within a predefined study area that focuses on a specific footprint. Based on the low current densities on North Baffin Island this would not be possible. Densities must increase before we can quantify project effects at the population level. For effects at the individual level current surveillance monitoring is sufficient to identify and mitigate potential effects as individual caribou interact with the project. We have identified things we need to consider for the study design of a future impact study. Specifically, where the caribou need to be. They must be closer to the project. The sample size that we would need would be a range from 1 to 50 size. We identified we would need 35 collared caribou per year. 350 need to be within a caribou study area of a given footprint. It will be important to identify 2 separate study areas,

north and south. We suggest 350 caribou be present in the North study area and require 35 collars per year and the same for the southern footprint. The density of caribou will need to increase by 5 times greater than the 2014 Mary River stratum density of 5.7 Km per 1,000 density square. Currently we have ground based observations. These include the HOL survey, incident observations, hunter observations, GN aerial surveys. When a condition is met, it would trigger an aerial survey that would inform us on caribou density in the area. These would be a collaborative effort specifically for estimating abundance and density and identify the trigger for future monitoring. When this condition was met it would lead to approximately 35 caribou being collared per year. We want to ensure an impact study and remove any guess work with mitigation. Effective mitigation that will reduce the risk harm to caribou and be well informed by the impact study. With a strong study design we can collect better data and the ability to quantify population level effects and a better targeted mitigation strategy that will be useful.

The floor is opened for questions

JR: Map on Slide 23, study areas identified and hoping for 35 collared animals and 350 in North and South study area. The study area looks like it is 40 Km buffer around. Knowing that North Baffin land are at a low right now. In those mainland migratory groups some of the recent work is identified going beyond 30 km, what would be the implications if the zone of influence is out to 30 km and there is very few animal and the road the railway the project is creating a level of disturbance. You might not see 350 caribou within that area for the future. The communities have identified that there are impacts now on individual and groups of animals. I don't think it would be reasonable to not do any survey work until this threshold is met, we might not get there. What if that is the impact?

KB: You have to look at the mechanisms, I don't see a clear link to a mechanism suggesting anything 40 km plus. The two scenarios that we ran indicate that if you sample caribou in a broad scale you are going to pick up spatial distribution that isn't going to link to project effects. Right now, caribou are at a low density and we see that most are concentrated to that south east area moving further into the sub population. Most are residents as well. At low densities there is no clear way to link a sensory disturbance affect to those caribou. If densities are so low that very few caribou interact with the project in general, then surveying these methods are targeting mitigation for those individual interaction.

JR: I do like this discussion is happening and was missing in the past. There are some items I don't agree with. I would suggest if there are 240 animals in North Baffin study area, the composition studies in the past couple of years suggest that based on productivity and trend, there is likely an increase in North Baffin. There should be more than 240. The GN has continually pushed to say that the Height of Land survey is not being completed with enough of an effort to identify the impacts. I don't believe 18 hours is enough to determine impact.

MS: This discussion is about a study design for the collaring program that we are obligated to support for GN. We state that our Height of Land is not impact monitoring it is surveillance. Let's bring the discussion back to what we are talking about which is an impact study design using collared data.

JR: You missed where I was going with that, I thought the discussion was this project and the indicators, being Height of Land and survey's and then doing abundance level estimates or aerial survey's to determine the abundance within that region. Then a large scale collaring project.

MS: JR - we are looking for input on what we have presented here for collaring design program. Do you have any specific input on that and can provide direction?

JR: My question is what is the plan if those thresholds are not met? My concern is you may never get there.

PS: I think we need to assume there will be an increase in density. The information we get is the populations have gone down and they are cyclical and at some point they will increase.

SL: Wondering if you've thought about integrating some prediction of when the population numbers are likely to increase? JR's point is we are looking at the trigger for an aerial survey would be multiple groups per survey per multiple efforts. From Height of Land survey, incidental observations and hunter observations. If we get a better local monitoring program in place that is tied to hunter observations from people that are regularly out on the land seeing those increases happening. If the Height of Land surveys never actually achieves much of seeing observations, to date they haven't been very successful. If there are indicators that caribou numbers are increasing and yet we are not getting the numbers we expect to be seeing. If there was no influence of the railway we are not getting the numbers expected in the 40 km buffer zone. Can we think about what the implications would be? Mike, I think you are saying a collared survey within 40 km of the rail isn't going to be an effective way to look at changes in movement patterns if you don't get to the number of 350. But if you don't get to that number and the numbers are

increasing elsewhere that suggests and effect as well. We need to think about those kinds of indicators that might trigger mitigations that are not captured in the system right now.
KB: I have to look at all sources of evidence when making conclusions about the effects or the trigger for aerial surveys. GN has done composition surveys. There are hunter observations. Because there is an increase in densities further south east and that it is cause because of the project because there is no mechanism linking that conclusion. That is why a regional monitoring program might better understand what is happening in terms of habitat selection but that isn't going to tell us what the project is doing.
EM: There is not a linear relationship between the Height of Land surveys and current project effects monitoring being done in terms of surveillance and other projects such as aerial survey. There is valuable harvester data that will hopefully be shared with us and we will have an understanding if there is more caribou in the Project area or areas outside of the Project area. What other indicators should we be look at and become import. For example, continuing to do our noise monitoring. It isn't just looking at a single study or data set to understand changes in habitat affected by the project. If we were seeing a growth in the population of the caribou in an area that wasn't near the project site, we have the ability to go back to the baseline to understand that data.
PS: I understand the power analysis to get at your sample size, but I didn't get how you came to the conclusion that 35 animals would achieve the necessary power to the conclusion that equates to a need for 350 animals in the study area as a trigger. What was the basis of that?
GN: We were trying to see when those estimates would become reasonably precise. Going from 35 to 350 that is a logic leap and that is why we wanted to open to a discussion. For sample sizes, we are assuming that the population size is unknown but fixed and we are trying to get a representative sample. We are working backwards, at a reasonable guess that would allow 35 caribou to represent of the population acting with the project.
PS: This is likely not clear for the group, I missed this part about 7 to 10 per group and that is the logical argument. You could achieve your state of precision with 35 animals in the study area and collaring all of them. The concern is that would not be a representative sample of the population. To be clear it is a logical decision not a statistical argument that 350 is the trigger rather than a number as low as 35 caribou in the study area.
GN: That is correct.
PS: I don't disagree with the logic about group size I think that is a reasonable argument.
MS: JR - we went for part of the GN collaring program we are finding group caribou sizes in the past 7 to 10 and maybe up to 20, usually smaller groups. Under collaring programs, you will only collar one caribou out of a group. That was part of the reasoning as well. We are looking for at least 35 groups of caribou that size.
BP: I don't believe JR is on the call now.
PS: Would it be problematically vague to stage your threshold more like that MS? Right now the numbers are too low, as the numbers go up we will make a determination of when they are a suitable level as a starting point.
MS: It would still be 35 groups within the 40 km radius of the project. Maybe EO has more input on that.
EO: I don't see anything in this that involves Inuit knowledge.
MS: If we started these studies and never talked to the communities and did our own aerial surveys we would have assumed that caribou was always at this low density. It would have been impossible for us to develop this kind of study. We know that the caribou will recover because we have been told that by the Inuit when the large herds come back, when the trails grow over, the caribou will come back. The premise of this study is based on Inuit traditional knowledge and faith that the animals will come back. If we did it without talking to the communities, we would assume the caribou were always 1,000 to 10,000 times lower density here than where these studies are successfully completed. This is all about long-term knowledge about caribou and we are just putting some science behind it from our understanding to support a monitoring program from a science perspective. This is all about the science on top of the Inuit knowledge and everything we have learned from it.
GM: EO - when we show you data from 2011 collared data is this representative of where you were seeing or where you were hunting caribou? Does that match recent history?
EO: I see the maps. A lot of them are not even where we see various caribou. I'm having a hard time looking at this. It just doesn't make sense, it seems like it is avoiding real numbers and impact.
MS: EO - I understand what you are saying and all the graph and figures don't represent what it looks like on the ground. I don't think you would ever see any collaring program using designed to the extent. I agree we are at the limits of our scientific knowledge to predict what is going to happen.

SL: Wondering how much variation you saw in group size number and if there is any data on that. I would also like to talk about the 40 km area that you have identified. A detailed methodology document would be helpful to give us a chance to do a good review to understand the assumptions. There is very likely to be an effect of building this type of project on the caribou habitat. I think we have to be careful about being unwilling to accept any kind of impact, even if the impact potentially inflated by other things going on. There is going to be an impact and what can we do to lessen the impact as much as we can. I believe we should be focusing our efforts on that not trying to avoid any kind of responsibility for potential stages that are observed in the way the caribou are using the area around the railway and the mine.
KB: To have the best kind of mitigation we need to fully understand what the impact is and the reason we have laid out this study design in detail. We will go into much more details about how we got to this in the report. The point is so we can clearly identify what the impact is and best mitigate it rather than guess what we should be doing.
SL: The question about group size number and if data is available.
GP: We got that number from the 2014 population estimate for North Baffin and that is where the 7 comes from and the 10 from local knowledge that we reviewed. That information if available in the 2014 survey report. There was a mean group size of 7 and not a lot of variation around that.
MS: That is GN data that we have used and had available to us. This is the technical discussion about trying to figure out a study design to determine impacts. It isn't about shifting responsibility it is about trying to make the right decisions based on all the information available to us. We are looking for direct technical feedback on this approach.
GM: I think it is important that EO brought up the point of integrating Inuit knowledge and I think the question of mean group size is important. Is it reasonable to think group size is around 7-10 caribou, and whether they are variable or not will help us as well. EO - What are you seeing on the ground?
EO: The most caribou we have seen on the ground is 35 animals in a group, this was last year. Most common is between 7 and 10-15 are most common numbers of animals seen.
SL: I want to flag that we follow up with GN to check on group size numbers. I appreciate EO providing his perspective on it (**ACTION T-10122021-6).**
PS: Can someone confirm there will be a technical report that will be circulated about this so we can comment in more detail? Is that correct?
MS: Yes, there will be a detailed report. If there are any further information to provide on the questions, input on the approach, study areas, we talked about the caribou density and sample size. Suggesting the number of collared caribou.
PS: A simple metric you could include is whether the proportion of the North Baffin herd using the Project area is different pre- and post-development. Are there pre-development surveys that are spatial?
MS: No there are not.
PS: In the technical report it would be helpful to accompany that with a review of some of the details of the other studies that are public information. From Meadowbank for example, also Porcupine Caribou herd from GPS to support this zone of influence and a study area in the 40 km range based on other studies.
GM: If people are eager to see the reports, can you tell us if you are comfortable with what we have provided thus far and are now waiting for more details to review everything. Are you flagging anything in our approach or we're good to move forward?
SL: This has been really helpful to see this and it will be great to see the technical document. It would be nice to identify a trigger for what happens, for example observations from Inuit, are the numbers increasing elsewhere and you're not getting the increase within the Project study area. What does that trigger? Is there something else we might like to think about doing? In terms of reviewing information from other locations, there might be some implications from some recent studies in Newfoundland on Caribou populations which show density-dependent changes and their nature. I will see if I can find that and send it your way. **(ACTION T-10122021-7)**
GM: Great to have a bigger data set, I agree with you, please share that data.
SL: What is the timeframe for releasing the technical reports?
GP: Early February 2021.
AHM: I think this is good discussion as JR said earlier, important. GN pushing the need for additional effort for the Height of Land, we have been commenting about that and snow track surveys. The comments, we do what we can when there is light. I would look to EO to confirm that if you took a ski-doo with a head light down the road track

during the hours of limited light, you'd still see animal tracks along the side of the road. Increasing efforts for these local impacts is really important.
EO: Caribou don't have a clock, they wander around all times of the day and night.
GM: From our end there are certain limits on when surveys can be done (and safety considerations. CD – What is your perspective on this?
CD: There was a discussion of why we switched from snowmobiles to trucks, our current methodology is from a truck from the road. Yes, around recent snow falls and then waiting within 24-hour period that we action that, we are limited to that. When those conditions are met we head out.
MS: The use of snowmobile was the original design. You can't select a path of travel like that if you are hunting. Simply too hard on the equipment to run transect parallel to the road.
GM: Unfortunately, with our lengthy discussions, we are unable to discuss NRCan at this meeting, we will move that presentation to a future TEWG meeting. Thank you for your contributions today, appreciate your time. (**ACTION T-10122020-8**

*****ACTIONS*****

6. **QIA** to follow-up with **GN** to check on caribou group size numbers and report back to the group.
7. **QIA** to look for recent studies in Newfoundland on Caribou populations and forward to the group.
8. **Baffinland** to reschedule **NRCan** presentation at a follow-up TEWG meeting.

Closing Out Notes

- Please send around a list of key follow-up items that you captured and we will include that in the minutes. (**ACTION T-10122020-9)**
- Thank you for coming today. Meeting is adjourned.

*****ACTIONS*****

9. Request that **TEWG** members forward to **Baffinland** a list of follow-up items that were captured during meeting so that they can be captured in meeting minutes.

Tables that follow provide summary of: i) action items from current; status update on action items from previous (ii) June 24, 2020; (iii) February 26, 2020; (iv) June 20, 2019; and v) April 24, 2019 meetings.

Table 1. Summary of action items from December 10, 2020 TEWG Meeting:

#	Action	Action By	Status Update
1	**Baffinland** (Site Environment) to circulate to Working Group members ECCC-CWS and QIA the data on the chemical composition of DusTreat.	Baffinland	Completed. Baffinland sent Safety Data Sheets (SDS) of DusTreat via emails to QIA and ECCC-CWS on December 10, 2021 (also attached SDS to draft minutes for reference).
2	**TEWG** members to provide **Baffinland** with feedback regarding sites for dustfall collection for 2021 baseline monitoring for proposed railway.	All	In progress. Any additional feedback to be provided for consideration by Baffinland can be submitted as part of comments on draft minutes and

			include reference to figure shown during meeting (see page 6 of BIM TEWG Update_Final_ENG.pdf/BIM TEWG Update_Final_IKT.pdf).
3	**Baffinland** to provide **TEWG** members the data/analysis from helicopter contractor for review.	Baffinland	In progress. Baffinland will provide an update through 2020 annual reporting efforts.
4	**Baffinland** to include an agenda item on the practical realities of helicopter flight requirements and constraints as part of a future TEWG meeting agenda item**.**	Baffinland	In progress. To be discussed as part of a future TEWG meeting agenda item.
5	**MHTO** to provide any additional information on caribou possibly interacting with the Tote Road including dates on which these observations were made.	MHTO	Not Yet Started. Baffinland has not received additional information from the MHTO regarding incidental caribou sighting(s) interacting with the Tote Road. MHTO to provide any additional updates as part of the review of these meeting minutes. Baffinland will also follow-up with the MHTO as part of future discussions.
6	**QIA** to follow-up with **GN** to check on caribou group size numbers and report back to the TEWG.	QIA (SL)	Not Yet Started. QIA to provide update as part of review of meeting minutes.
7	**QIA** to look for recent studies in Newfoundland on Caribou populations and forward to the group.	QIA (SL)	Not Yet Started. QIA to provide update as part of review of meeting minutes.
8	**Baffinland** to reschedule **NRCan** presentation at a follow-up TEWG meeting	Baffinland/NRCan	Not Yet Started. 2021 meeting dates have yet to be scheduled.
9	Request that **TEWG** members forward to **Baffinland** a list of follow-up items that were captured during meeting so that they can be captured in meeting minutes.	All/Baffinland	Completed. No follow-up items were received. TEWG to provide any other feedback through review of meeting minutes.

Table 2. Summary of action items from June 24, 2020 TEWG Meeting:

#	Action	Action By	Status Update
1	**Baffinland** to provide an update on the amount of Dust Stop® ordered for 2020.	Baffinland	Completed. Baffinland ordered 654 m^3 for 2020.
2	**Baffinland** will develop a tracking table that includes the recommendations made by members of the TEWG.	Baffinland	In Progress. Development of table remains under consideration. No formal recommendations have been submitted.
3	**Baffinland** to consider holding a future engagement session on potential identification of migratory bird concentrations.	Baffinland	Not Yet Started. Baffinland will plan to have an agenda item dedicated to this item as part of a future TEWG meeting.

4	**ECCC-CWS** (PS) to follow-up internally on how the flight height guidance was developed.	ECCC-CWS	Not yet started. Baffinland will modify status based on input from ECCC-CWS following review of draft minutes.
5	**Baffinland** to share copy of guidelines provided to helicopter pilots and passengers with regard to flight height guidance.	Baffinland	In progress. As part of a future TEWG meeting, Baffinland will discuss the various elements of the guidelines shared with pilots in advance of the upcoming 2021 field season.
6	**Baffinland** to provide a figure showing potential locations for dustfall sampling for deviations of rail line.	Baffinland	Completed. As part of the December 10, 2020 TEWG, Baffinland shared and discussed proposed sampling locations for additional dustfall samplers.
7	**Baffinland** to continue pursuing discussions with **NRCan** regarding dust monitoring techniques.	Baffinland/NRCan	In progress. As part of the December 10, 2020 TEWG meeting agenda, NRCan planned to present their research that is relevant to dust monitoring, however due to delays in the meeting schedule, the agenda item will be moved to a future TEWG meeting (TBD).
8	**Baffinland** will explore the potential for Site Environment staff to track animal sightings in consideration of observer effort in 2020.	Baffinland	Completed. Baffinland Site Environment staff concluded that it is not feasible to adequately track observer effort. However, as part of this initiative, all of the environmental field staff are now provided incidental wildlife sighting sheets to improve tracking processes.
9	**Baffinland** to consider other sources of noise such as wind speed in order to control for these factors as part of noise analyses.	Baffinland	Completed. Analyses completed as part of pilot noise study considered other sources of noise by identifying wind sound signatures in recordings. Specific details on the analysis will be provided as part of the draft 2020 Terrestrial Environmental Annual Monitoring Report.
10	**Baffinland** will distribute to the TEWG the 2019 flight tracks near walrus haulout in Steensby split by month, as done last year with 2018 data.	Baffinland	Completed. Baffinland provided the 2019 flight tracks near walrus haulout in Steensby split by month as part of 2019 Annual Report to NIRB comment response from QIA 2019 AMR M&AE #15 (map provided in Attachment 2).
11	**GN (BP)** to get insight from local biologist on specific questions that may need answering re. caribou behaviour, distribution, etc.	GN	In progress. GN biologist (John Ringrose) was able to join the December 2020 call and provide some feedback, however additional targeted discussions will need to continue into 2021 once data from the caribou monitoring analysis (triggers and strategies) is shared with the TEWG for feedback.
12	**MHTO** technical advisor (AMH) to get additional insight from MHTO members on the "what was heard" re. caribou triggers	MHTO	In progress. No additional feedback was brought forward following the meeting however MTHO was present during the December 2020 call and was able to provide some comments on the progress. Additional discussions will need to continue into 2021.

Table 3. Summary of action items from February 26, 2020 TEWG Meeting:

#	Action	Action By	Status Update

7	**Baffinland** to consider installing dustfall samplers at an alternative height (e.g., 0.5 m or 1 m) for a subset of locations once TEWG members provide scientific support (weight of evidence) for doing so.	Baffinland/TEWG	In progress. Action requires additional information from TEWG members for consideration by Baffinland before proceeding. It is also noted that Baffinland has added satellite imagery analysis to better assess dustfall extent. Results will be provided as part of 2020 terrestrial environment annual reporting efforts.

Table 4. Summary of action items from June 20, 2019 TEWG Meeting:

#	Action	Action By	Status Update
9	**Baffinland** Site Environment team to consider revising hunter/site access protocol to ask hunters who come to site if they are amenable to participate in mapping caribou migration routes and travel paths to develop a more comprehensive database of this information.	Baffinland	In progress. Baffinland will discuss this request with the MHTO to better understand the possibility for moving ahead with this request. In the meantime, any input from the MHTO is welcomed as part of the review of these meeting minutes.

Name: Chris Spencer

Agency / Organization: Qikiqtani Inuit Association

Date of Comment Submission: 12 April 2021

#	Document Name	Section Reference	Comment	Baffinland Response
1	A.1 Dec 10 2020 TEWG Meeting No. 23 Minutes_Draft	General	It is QIA's expectation that draft TEWG minutes be provided to participants in a timely manner (i.e., 2-3 weeks), to allow for effective review. Any delays in submission of draft minutes should be clearly communicated to all Working Group members so that technical experts can adjust schedules as needed. These draft minutes for the December 2020 TEWG conference call have been provided ca. 4 months post-meeting. Due to the lateness of the submission of these draft minutes, and other priorities, QIA will not be submitting detailed review comments. We recommend that the Proponent make all possible efforts for timely submission, and clearly communicate any anticipated delays in doing so.	Thank you for your comment. Baffinland acknowledges that these minutes were provided later than usual and will make best efforts in the future to distribute draft minutes to obtain feedback from the TEWG in a timelier manner. It is noted that since March 2020, Baffinland has faced numerous challenges related to the global COVID-19 pandemic, which as of April 2021, is still ongoing. Accordingly, this has resulted in the reprioritization of certain activities in order to ensure the health and safety, including the wellbeing, of its employees and contractors, who have had to constantly adapt to changing conditions. Activities such as coordinating and completing environmental effects monitoring programs safely rather than cancelling programs in the context of a global pandemic required greater time and effort during implementation, and accordingly such activities were prioritized over others due to their importance. Furthermore, as can be seen in the action tracker, Baffinland placed greater value on completing actions identified during these

#	Document Name	Section Reference	Comment	Baffinland Response
				meetings, and accordingly was able to demonstrate progress towards these actions. Baffinland notes that it did not receive any request from the working group members asking when these would be made available. As part of its 2020 annual reporting efforts to the NIRB, Baffinland will be providing a summary of the challenges it faced related to the COVID-19 pandemic, and the solutions that were implemented in order to continue operating responsibly during a global pandemic.

Baffinland

Name: Krupesh Patel

Agency / Organization: ECCC

Date of Comment Submission: April 8, 2021

#	Document Name	Section Reference	Comment	Baffinland Response
1	A.1 Dec 10 2020 TEWG Meeting No. 23 Minutes_Draft	Caribou monitoring: Triggers and Strategies	The following 3 comments from the minutes are referenced to the wrong individual. I believe they are meant to be referenced to KB: KP: You have to look at the mechanisms, I don't see a clear link to a mechanism suggesting anything 40 km plus. The two scenarios that we ran indicate that if you sample caribou in a broad scale you are going to pick up spatial distribution that isn't going to link to project effects. Right now, caribou are at a low density and we see that most are concentrated to that south east area moving further into the sub population. Most are residents as well. At low densities there is no clear way to link a sensory disturbance affect to those caribou. If densities are so low that very few caribou interact with the project in general, then surveying these methods are targeting mitigation for those individual interaction. KP: I have to look at all sources of evidence when making conclusions about the effects or the trigger for aerial surveys. GN	

#	Document Name	Section Reference	Comment	Baffinland Response
			has done composition surveys. There are hunter observations. Because there is an increase in densities further south east and that it is cause because of the project because there is no mechanism linking that conclusion. That is why a regional monitoring program might better understand what is happening in terms of habitat selection but that isn't going to tell us what the project is doing. KP: To have the best kind of mitigation we need to fully understand what the impact is and the reason we have laid out this study design in detail. We will go into much more details about how we got to this in the report. The point is so we can clearly identify what the impact is and best mitigate it rather than guess what we should be doing.	