



October 30, 2015

Mackenzie Valley Environmental Impact Review Board
200 Scotia Centre
P.O. Box 938
Yellowknife, NT
X1A 2N7

Attention: Chuck Hubert, Senior Environmental Assessment Officer

**Re: EA1314 - 01 Jay Project, Dominion Diamond Corporation Developer's
Assessment Report – Closing Submission**

Dear Mr. Hubert:

Accompanying this letter, Dominion Diamond is pleased to submit its closing submission for the Jay Project environmental assessment review.

We would like to thank all parties for their closing arguments and their continued participation in the review of the Jay Project Developer's Assessment Report.

We look forward to the Report of the Environmental Assessment.

Regards,

A handwritten signature in black ink, appearing to read 'Richard Bargery', is written over the printed name.

Richard Bargery

**Manager, Permitting Jay Project
Dominion Diamond Corporation**



CLOSING SUBMISSION FOR THE JAY PROJECT

October 30, 2015



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Appendix A Concordance Table of Recommendations From Parties' Closing Submissions

Abbreviations

Abbreviation	Definition
AANDC	Aboriginal Affairs and Northern Development Canada
AEMP	Aquatic Effects Monitoring Program
AQEMMP	Air Quality and Emissions Monitoring and Management Plan
CMP	Caribou Mitigation Plan
CRMP	Caribou Road Mitigation Plan
DAR	Developer's Assessment Report
DFO	Fisheries and Oceans Canada
DKFN	Deninu Kue First Nation
Dominion Diamond	Dominion Diamond Ekati Corporation
EA	environmental assessment
Ekati Mine	Ekati Diamond Mine
ENR	Environment and Natural Resources [for the GNWT]
GNWT	Government of the Northwest Territories
IBA	Impact Benefit Agreement
ICRP	Interim Closure and Reclamation Plan
IEMA	Independent Environmental Monitoring Agency
IR	information request
KIA	Kitikmeot Inuit Association
LKDFN	Łutsel K'e Dene First Nation
LLCF	Long Lake Containment Facility
MVEIRB	Mackenzie Valley Environmental Impact Review Board
MVRMA	<i>Mackenzie Valley Resources Management Act</i>
Narrows	outlet of Lac du Sauvage
NSMA	North Slave Metis Alliance
NWT	Northwest Territories
Project	Jay Project
SEA	Socio-Economic Agreement
SNP	Surveillance Network Program
TDS	total dissolved solids
TK	Traditional Knowledge
YKDFN	Yellowknives Dene First Nation
WEMP	Wildlife Effects Monitoring Program
WLWB	Wek'èezhii Land and Water Board
WRSA	Waste Rock Storage Area
VC	valued component
ZOI	zone of influence

Units of Measure

Unit	Definition
%	percent
<	less than
m	metre
mg/L	milligrams per litre
m ³	cubic metres



1 INTRODUCTION

In October 2013, Dominion Diamond Ekati Corporation (Dominion Diamond) submitted an application to the Wek'èezhìi Land and Water Board (WLWB) requesting a Land Use Permit and Class A Water Licence to enable mining of the Jay kimberlite pipe (Jay pipe) as an extension project of the Ekati Diamond Mine (Ekati Mine). In Dominion Diamond's initial submissions for the Jay Project (Project), Dominion Diamond's pre-application community engagement indicated that the Project "might cause significant public concern" and, because of these potential concerns, Dominion Diamond acknowledged that the Project would be appropriate for referral to the Mackenzie Valley Environmental Impact Review Board (MVEIRB or the Review Board) for an environmental assessment (EA). In November 2013, the Project was referred to the MVEIRB for an EA by Aboriginal Affairs and Northern Development Canada (AANDC), under paragraph 126(2)(a) of the *Mackenzie Valley Resource Management Act* ([S.C. 1988, c.25](#)).

Over the past two years, there have been significant changes and improvements to the Project in response to input from communities and the Parties to the EA process. The most significant of those changes was the decision taken by Dominion Diamond in the spring of 2014, and in response to concerns heard during the engagement process, to remove the Cardinal pipe from the Project and to proceed with a project based on the open pit mining of the Jay pipe only. Dominion Diamond has made numerous other improvements to the Project and commitments during the EA process described throughout the process.

Dominion Diamond is pleased to provide its closing submission for the Jay Project - EA1314-01 [2013]. Dominion Diamond would like to thank the Review Board, its staff, and all of the Parties to the Jay Project Environmental Assessment process for their efforts to review and provide recommendations to improve the Project.

In our closing submission, Dominion Diamond has not responded to all measures, recommendations, and suggestions in the closing submissions of the Parties, as we have responded comprehensively to these in the responses to the Technical Reports and Information Requests (IRs). We will address a number of recommendations that have been added or changed since the Technical Report stage. For the reference of the MVEIRB and Parties, attached as an appendix to this submission is a concordance table that provides references to Dominion Diamond's responses to all recommendations in the closing submissions of the Parties.

1.1 Engagement

Dominion Diamond is committed to engaging with communities and stakeholders in an open, timely, and comprehensive manner. Since purchasing the Ekati Mine in April 2013, Dominion Diamond has met with communities and stakeholders on a regular basis to discuss issues related to the Ekati Mine, including projects to extend mine life, such as Jay. Engagement takes many forms, but primarily quarterly meetings between Dominion Diamond senior management and community leadership, public community meetings, site visits, Impact Benefit Agreement (IBA) meetings and workshops have been held to seek input on specific issues.

The purpose of this engagement is both to develop an understanding of the operation of the mine or projects amongst stakeholders and to allow for feedback on issues of concern. More importantly,

Dominion Diamond has shown it is responsive to input from stakeholders throughout this process by evaluating the feedback received and making changes to the Project, as may be appropriate.

For example, as noted above, Dominion Diamond engaged with parties on the Jay-Cardinal project, as per the Terms of Reference for the Jay-Cardinal project EA, February 2014 (MVEIRB 2014). As a result of feedback received during this engagement, Dominion Diamond looked at alternative options that would reduce the overall footprint and the potential impacts of the Project, particularly to caribou. In June 2014, Dominion Diamond submitted an addendum to the initial Project Description that withdrew the Cardinal pipe from the Project, which resulted in a substantial reduction of the Project's environmental footprint.

Other examples of engagement that Dominion Diamond has taken during the EA process includes the following meetings with Parties that have been fully reported on the Public Registry:

- a meeting of technical experts on Protein-Energy Models for Caribou;
- a workshop to discuss and gain a better understanding about the views of the communities on Aboriginal Culture and the Project;
- a workshop to discuss and seek input on conceptual management plans for the Project;
- two workshops to seek input into the mitigation and monitoring for the Jay and Misery roads with respect to caribou, which resulted in the development of the Caribou Road Mitigation Plan (CRMP; Dominion Diamond 2015a [PR #518]); and,
- a workshop and follow-up conference call that resulted in Dominion Diamond's commitment to develop a Caribou Mitigation Plan (CMP; based on the framework submitted in hearing undertaking DAR-MVEIRB-UT2-06) on October 9, 2015 (PR #673). This commitment is discussed further in the caribou section of this submission.

Dominion Diamond would like to thank the Łutsel K'e Dene First Nation (LKDFN) for its acknowledgement of Dominion Diamond's engagement efforts in its' closing submission.

"LKDFN would like to thank Dominion Diamonds for their efforts to include us in this process and their openness to dialogue, which is not always LKDFN's experience with resource development companies."

Dominion Diamond also acknowledges the views about the Project expressed by the community of Łutsel K'e during the public hearing in Łutsel K'e on September 19, 2015 and in their closing comments. The LKDFN outlined a number of concerns about the Project and development in general in its submission, many of which are both outside the scope of this Environmental Assessment and the ability of Dominion Diamond to address. While Dominion Diamond respects the views expressed, we note that no other Party has suggested that the Jay Project not be approved. The Jay Project will provide substantive and sustained socio-economic benefits to the North with no significant adverse environmental impacts. This is a Project being proposed by a Northern Company with over 64 percent (%) of its direct workforce that live and work in the North, and that supports many northern and Aboriginal businesses. With due respect for the LKDFN's submission, Dominion Diamond requests that the MVEIRB approve the Project according to the mitigations and commitments that are on the public record including those additional commitments made in this submission.

Dominion Diamond reiterates its commitment to build strong and lasting partnerships with all IBA communities, including Łutsel K'e. Dominion Diamond is presently working with Łutsel K'e on specific community projects and initiatives intended to strengthen that relationship long into the future.

A full record of the engagement for the Project can be found in the Jay Engagement Registry (PR #[691](#)).

1.2 Traditional Knowledge

Dominion Diamond respects the importance of Traditional Knowledge (TK) to Aboriginal people, and actively seeks out ways to incorporate TK at the Ekati Mine. Traditional Knowledge is used to inform existing mitigation and monitoring at the Ekati Mine, analysis in the Developer's Assessment Report (DAR) for the Project, and conceptual mitigation and monitoring plans for the Project. Dominion Diamond is committed to further integration of TK in all phases of the Jay Project and operation of the Ekati Mine.

Examples of recent Ekati-based TK projects include archaeological inspections of the proposed Project area by Yellowknives Dene First Nation (YKDFN), and inspection of the proposed Jay Road route through an esker by Tłıchǫ Government representatives and Elders. Dominion Diamond undertook the successful fish-out of Lynx Lake with the full participation of members of all IBA groups who contributed to the design and the carrying out of the fish-out, and intends to undertake similar engagement to inform the methods and timing of the Jay fish-out and the carrying out of that fish-out.

In the DAR, traditional land use and knowledge provided the following insights that were important to the assessment:

- the importance of the outlet of Lac du Sauvage (the Narrows) and Lac du Sauvage esker to caribou migratory movements;
- how caribou populations increase and decrease through time;
- how the availability of caribou lichen could be used as a predictor for where caribou might be during migrations;
- how fire and climate change influence caribou abundance and distribution, and recently, caribou are arriving on the wintering grounds later in the year;
- the importance of the Narrows for fish spawning and movement between Lac du Sauvage and Lac de Gras;
- that the Narrows stays open in the winter due to the swift currents through the area;
- input into the development of the CRMP;
- the selection of the route for the Jay Road, including the cut through the esker, as the least disruptive to the environment and to caribou movement; and,
- construction of the Jay Road as a caribou crossing wherever possible respecting the communities' identification of the importance of this area for caribou movement.

A number of Parties made specific recommendations concerning funding for TK-based research led by Aboriginal communities and TK holders. Dominion Diamond is committed to providing funding for TK-

based research projects, and in fact, already provides substantial financial support for community-based TK projects that provide input into the operations of Ekati or new projects such as Jay.

For example, for the Project, Dominion Diamond funded: the Tłı̨ch̓ Government's "What'aa-Esker Research Project" that identified community-based concepts that may be useful for the planning, construction, and reclamation of mine waste rock piles; and the YKDFN "Lands that are Wide Open" Traditional Knowledge Report that provided recommendations to the Jay Project and to assist the YKDFN to share their oral and recorded TK with their members (PR #[562](#)).

Dominion Diamond has also funded or agreed to make significant funding contributions to fund TK projects for:

- the Kitikmeot Inuit Association (KIA) to create a web-based, user-friendly interface that will provide public access to a selection of TK from the Naonaiyaotit Traditional Knowledge Project; and,
- LKDFN to create a web-based, user-friendly TK archiving system that will organize TK, include detailed maps, and be publicly accessible to Project Beneficiaries.

In addition to this, during the EA process, Dominion Diamond also made the following commitments:

- to provide ongoing support, in-kind or financial, to Aboriginal communities in order that they can manage and keep track of TK relevant to the Project;
- to meet with the YKDFN to discuss the submission of a new application to build on the work in the YKDFN Traditional Knowledge Report, and to continue their work with Elders and communities so that this can help inform the future operation of the Ekati Mine (including the Jay Project);
- to develop a Caribou Monitoring Strategy/Plan in collaboration with IBA communities that will be supported with at least \$100,000 (either direct financial or in kind support) annually from the start of construction (at least \$1.3 million total for the Project); and,
- to provide a total of \$1,050,000 million in financial offsetting to support research that assist in determining the drivers of the zone of influence (ZOI) and the changes in the Bathurst caribou herd that would include involvement from Aboriginal communities and TK Holders in research planning and follow-up.

1.3 Expert Panels

The Parties to this process have made a number of recommendations related to the establishment of expert panels to review aspects of the Project. Dominion Diamond has addressed a number of the specific recommendations in the pertinent sections of this submission, but with the exception of the Independent Dike Review Panel, is not in agreement that the MVEIRB should mandate the formation of expert panels to review other aspects of the Project.

Dominion Diamond has engaged with the many Parties to the Project EA process over the past two years and has listened to and been responsive to the recommendations that have been made. Further, all of the Parties to the EA review process have reviewed the Project, including in many cases the direct input of local residents, TK holders, and technical consultants. The Review Board itself has staff and has retained technical consultants who are qualified in the topic areas suggested for expert panels. This work has resulted in many improvements to the Project since the original application to the WLWB in October 2013,

and in Dominion Diamond's view, provides the Review Board with adequate and appropriate information to approve the Project without need for further review by expert panels.

During the next phase of the regulatory process, the specific elements of the Water Licence and Land Use Permit for the Project will undergo a full review by the WLWB that will include extensive engagement with and review by Parties, including direct input from the Parties' staff, Elders, and consultants. As well, the WLWB has qualified staff and has the ability to retain any outside expertise that it may view as necessary to adequately review the specific elements of the Project that are within the WLWB's mandate. Dominion Diamond suggests that the potential need for and possible topic areas for expert advice remain the discretion of the WLWB.

The specific recommendation for an expert panel for the ongoing assessment of socio-economic effects is, in Dominion Diamond's view, regional and well beyond the scope of this Project review.

1.4 Review Board Jurisdiction and Mandate

In this proceeding, the Review Board is responsible for conducting an EA for the Project and making a report of its assessment to the Minister of Lands for the Northwest Territories under subsection 128(2) of the *Mackenzie Valley Resources Management Act* (MVRMA; [s. 128\(2\)](#)).

When conducting an EA, the Review Board is to ensure that the impact of the Project on the environment receives careful consideration taking into account the concerns of Aboriginal people and the general public (MVRMA [s. 114](#)). The Review Board is to consider any TK and scientific information that is made available to it (MVRMA [s.115.1](#)). The MVRMA requires that the Review Board's process be carried out in a timely and expeditious manner having regard to:

- a) the protection of the environment from the significant adverse impacts of proposed developments;
- b) the protection of the social, cultural, and economic well-being of residents and communities in the Mackenzie Valley; and,
- c) the importance of conservation to the well-being and way of life of the Aboriginal peoples of Canada to whom section 35 of the *Constitution Act, 1982* applies and who use an area of the Mackenzie Valley (MVRMA [s.115](#)).

On completing an EA, the Review Board is to make a determination whether, in its opinion, the development is likely to have a significant adverse impact on the environment or be a cause of significant public concern (MVRMA [s.128 \(1\)](#)).

Where the Review Board is of the opinion that the development is likely to have a significant adverse impact on the environment, it may order that an environmental impact review be conducted, or recommend approval of the proposal subject to the imposition of such measures as it considers necessary to prevent the significant adverse impact (MVRMA [s.128 \(1\)](#)). While usually directed at the developer, the Review Board's recommended measures can be directed to the Parties (such as a government body) where impacts can be reduced by the actions of other organizations besides the developer ([MVEIRB 2004](#)). In addition to recommendations, the Review Board may offer non-binding suggestions for good environmental management ([MVEIRB 2004](#)).

1.5 Assessment Approach

Dominion Diamond applied an assessment approach in the DAR that used the calculated and predicted changes in quantitative and qualitative measurement indicators to determine the significance of effects on assessment endpoints of valued components (VCs) of the biophysical and human environments. Selection of VCs included consideration of TK, and engagement with communities, government, and the Independent Environmental Monitoring Agency (IEMA). Assessment endpoints represent the attributes of VCs that should be protected for future human generations. Measurement indicators are variables of the environment and VCs that when changed can result in effects to assessment endpoints. Importantly, the study areas and time frames for the assessment were specific to VCs, which provided appropriate ecological and socio-economic effects predictions.

Changes in measurement indicators were analyzed during the Base, Application, and Reasonably Foreseeable Development cases (if applicable), and at local, regional, and population scales. For example, the DAR and responses to IRs examined downstream changes in hydrology, water quality, and fish and fish habitat in local waterways, Lac du Sauvage and Lac de Gras prior to and under existing conditions (e.g., Ekati and Diavik mines), with the Project, and into the future, which included the Sable project (Sable Addendum; Dominion Diamond 2014 [PR #234]) and Diavik A21 pit (response to DAR-MVEIRB-IR-78 [PR #305]). Similarly, caribou and other wildlife VCs were assessed locally and across VC annual and seasonal ranges, and the assessment included effects from previous and existing developments, the Jay Project, and future developments such as the Sable project, Diavik A21 pit, Izok Corridor project, and the Back River project. TK was included in the assessment and responses to the Adequacy Review, IRs, and undertakings.

A key aspect of the DAR and information provided by Dominion Diamond during the EA review was the recognition that all scientific studies and predictions contain uncertainty. To manage uncertainty and avoid underestimating effects, all of the analyses used a precautionary approach to predict maximum effects. As a result, most ecological effects from the Project are likely to be smaller than those presented in the assessment making them less likely to be measurable. This has consequences for determining the efficacy of enhanced mitigation and offset measures recommended by communities and IEMA. For example, it has been suggested that the energetic model used in the DAR could be used to measure the effectiveness of mitigation for increasing calf production in the Bathurst herd. However, the modelled change in calf production from the Project would be predicted to vary from 0% (100% effective mitigation) to 0.3% (no mitigation) for low insect levels (DAR Section 12.4.2.3.2). The natural variation in calf production is large relative to these small changes in model predictions. So although the model can be manipulated to vary the predicted effectiveness of mitigation on calf production, the actual positive impact of mitigation cannot be measured relative to the natural variation in this population parameter.

By definition, offsets need to be measurable so that their effectiveness at mitigating adverse residual effects can be assessed and known. The GNWT also recognizes the difficulty of providing offsetting opportunities and approaches to measuring their value, and are committed to working with Dominion Diamond to developing approaches for measuring or quantifying the value of the proposed compensatory mitigation actions (GNWT 2015 [PR #693]). These discussions may include an assessment of the alternate caribou energetic models, as recommended by the NSMA (NSMA 2015 [PR #695]), for evaluating the effectiveness of offsetting calf production.



2 CARIBOU

2.1 Determination of Significant Adverse Impacts

Dominion Diamond has reviewed the Closing Comments from all Parties involved in the Project EA review. A number of Parties continue to take the view that the Review Board should find that the Project would have a significant adverse cumulative impact on the Bathurst caribou herd pursuant to s. 128(1)(b) of the MVRMA. However, Dominion Diamond remains of the view that the weight of the scientific evidence provided in the DAR and in the responses to the Adequacy Review and IRs illustrate clearly that there may be a small, almost immeasurable impact on caribou from the Project. The small predicted impact is based on a conservative modelling approach and before the enhanced mitigation, described in the following section, proposed by Dominion Diamond is implemented.

2.2 Proposed Mitigation

Dominion Diamond also recognizes and understands the significance of caribou to the culture, traditional land use, and economics of the people and communities affected by the Jay Project. For this reason, Dominion Diamond is committed to working with the Government of the Northwest Territories (GNWT) and Aboriginal communities to support the management and protection of the Bathurst herd. Dominion Diamond has made commitments to implement the following programs and plans that will provide appropriate and sufficient additional mitigation to compensate for any residual effects of the Project on the herd and the ability of communities to harvest caribou.

- Enhanced mitigation through further development and implementation of the CRMP (Dominion Diamond 2015a [PR #518]) to avoid and minimize the risk of caribou mortalities from traffic, the barrier effect from Jay and Misery roads (and other Ekati Mine roads) on caribou movement and migration, and limit the sensory disturbance from roads and traffic on caribou behaviour. Dominion Diamond has committed to further engagement with communities, IEMA, and GNWT to advancing the CRMP so that it can be implemented before construction of the Project for the entire Ekati Mine site. Dominion Diamond agrees with the GNWT that the detection of approaching caribou is a logistical challenge for applying protective measures, and that pilot studies into technologies and approaches (e.g., unmanned aerial vehicles, large animal detection systems and on-the-land monitors) is a legitimate research direction (GNWT 2015 [PR #693]). To fit within the objective of reducing the ZOI, these methods and approaches should result in no to little sensory disturbance on caribou. Funding from Dominion Diamond into the Caribou Monitoring Strategies/Plan component of the Caribou Mitigation Plan could be directed towards such pilot studies.
- Application of improved mitigation through research, direct offsetting, and adaptive management implemented by the CMP (public hearing undertaking DAR-MVEIRB-UT2-06 [PR #673]), includes:
 - financial support (at least \$1.3 million total for the Project) for developing and implementing Caribou Monitoring Strategies/Plans including TK-based research and monitoring programs;
 - financial support (\$300,000) for the installation of 50 geo-fenced collars to provide Ekati-specific information on caribou movement;
 - financial support (\$250,000) for studies to determine the drivers of the magnitude and spatial extent of the ZOI, with the goal of reducing the ZOI;

- financial support (\$500,000) for studies to identify the key factors limiting the Bathurst herd (i.e., what were the factors that caused the herd to decline);
- financial support for a pilot study (\$150,000) into the effectiveness of an alternative dust suppressant to mitigate the amount and spatial extent of dust produced on the Misery Road that, if successful, will be applied to all roads at the Ekati Mine as an offset for the Project; and,
- acceleration of progressive reclamation of the Long Lake Containment Facility (LLCF) and Waste Rock Storage Areas (WRSAs).

An important aspect of the CRMP and CMP is the application of adaptive management to the results generated from the plans, which is expected to improve mitigation effectiveness and decrease off-site and on-site residual effects from the Ekati Mine and Jay Project, respectively. Such mitigation practices may be extended beyond the local scale of the Ekati Mine to the seasonal range of the herd if adopted by other mining operations (GNWT 2015 [PR #693]).

Given that offsetting for the impacts on caribou is a new and unprecedented process in the Northwest Territories (NWT), Dominion Diamond has also made a commitment to work with the Department of Environment and Natural Resources (GNWT-ENR) to develop an appropriate approach and methods to determine the effectiveness (value) of offsets based on the principle that the Project and associated mitigation (including offsetting) will have an overall net neutral or positive impact on the health of the Bathurst caribou herd. As discussed with the Parties in the CMP Workshop (October 1, 2015 [PR #674]), the approach and methods for quantifying the effectiveness of offsets will likely evolve over time. Dominion Diamond will report publicly on the CMP on an annual basis.

The following sections provide the commitments and responses of Dominion Diamond to specific concerns expressed by Parties in their Closing Comments. Because the Parties have many similar comments and recommendations, Dominion Diamond has placed the concerns of Parties into themes to reduce repetition and provide clarity in responses.

2.2.1 Alternate Road Alignment

Parties have commented on the selection of the Jay Road route, esker crossing, powerlines, and need for additional mitigation to reduce sensory disturbance effects on caribou (e.g., dust, traffic, and blasting).

From the onset, Dominion Diamond has taken seriously the need to keep the footprint of the extension of the Ekati Mine as small as possible. Through initial engagement for the Jay-Cardinal project, there was much concern from communities, regulators, and IEMA about the large change in the area of Lac du Sauvage from the combined Jay and Cardinal pits and the associated loss of terrestrial habitat from the WRSA and other infrastructure, including stream diversions (response to DAR-IEMA-IR-42 [PR #305]). In response to community recommendations and comments, Dominion Diamond limited the extension of the Ekati Mine to the Jay Pit and associated infrastructure.

To further mitigate barrier effects to caribou, Dominion Diamond agreed with the recommendation regarding pipelines, which will be covered except where required for safety or inspection (response to DAR-KIA-IR-18 [PR #305]).

The selection of the Jay Road and esker crossing included extensive engagement with members of the IBA groups, including aerial reconnaissance and on-ground engagement to gather input on a route with the least impacts to caribou. In response to a request during the Technical Sessions, Dominion Diamond completed a comprehensive route analysis of the initial three alternatives and an additional route (alternative #4, technical session undertaking response DAR-MVEIRB-UT-02 [PR #371]). The results of the analysis found that proposed road alignment #4 is less caribou friendly (i.e., it is longer, requires more safety berms, provides fewer caribou crossings, and requires more traffic due to greater amount of inclines). The preferred alignment #3 has the smallest impact to the esker and allows a large portion of the road to be developed as a caribou crossing (Technical Session undertaking response DAR-MVEIRB-UT-1 and DAR-MVEIRB-UT-2 [PR #371]). Importantly, the selected alternative for the Jay Road (alignment #3) is consistent with the minimization of the barrier effect of the Jay Road to caribou movement and migration, a key element of the CRMP for the Project (Dominion Diamond 2015a [PR #518]), which was informed by substantial engagement with communities.

The location where the road crosses the esker has been selected to minimize disturbance by identifying a portion of the esker with a natural depression and where the width of the esker is narrow. The total length of the esker cut is approximately 80 metres (m). As noted by one of the speakers at the Behchokò community hearing, community engagement was conducted to aid in the selection of the most appropriate location to cross the esker, which included visits to the esker (September 17, 2015 Day 4 transcript, pages 77 to 78 [PR #647]). Community members who visited the esker were in general agreement that having the road cross at this location was most appropriate. Dominion Diamond provided further information that showed why the use of an overpass on the esker was not feasible due to the size of equipment that needs to pass under the overpass relative to the natural physical structure of the esker, and because it reduced the caribou crossing area along the road as a result of the need for fencing to direct caribou to the overpass (response to DAR-MVEIRB-IR-86 [PR #305]). Responses to concerns and recommendations for powerlines were provided also, and indicated that above-ground powerlines have smaller effects on caribou movement and distribution than roads and traffic (response to DAR-LKDFN-IR-16 [PR #305] and DAR-LKDFN-IR2-03 [PR #448]). Thus, the focus was on providing as many caribou crossings along the Jay Road as possible and developing and implementing a CRMP with triggers and action levels that increase protection of caribou, and monitoring that provides feedback to operations for adaptive management.

2.3 Zone of Influence and Aerial Surveys

The IEMA and communities have recommended that a research program be implemented to determine factors related to the magnitude and spatial extent of the ZOI on caribou. The results would then be applied to reducing the ZOI and reported annually in the Wildlife Effects Monitoring Program (WEMP). The IEMA further recommends that aerial surveys be continued to monitor the ZOI, and that a new survey design be implemented.

Dominion Diamond agrees that understanding the primary factors creating the ZOI is important for being able to effectively apply appropriate mitigation for decreasing sensory disturbance on caribou. Accordingly, Dominion Diamond has committed to the following components of the CMP:

- funding for the installation of 50 geo-fenced collars; and,

- financial support for studies to determine the drivers of the magnitude and spatial extent of the ZOI with the goal of reducing the ZOI.

The applicable results from these two programs would be included in the annual reporting of the WEMP and provide feedback to the Ekati Mine operations for adaptive management.

Dominion Diamond recognizes that a large number of the collared animals need to encounter the Ekati Mine to be useful in estimating the ZOI. Similarly, aerial survey methods also depend on the number and frequency of caribou distributed throughout the study area to provide measures of the ZOI with enough precision to detect statistical trends. In addition, altering aerial survey study design and sampling methods is likely to generate changes in the amount and type of explained and unexplained variance in the ZOI analysis, which may confound comparisons to previous results. An important difference between the two methods is that geo-fence collars can also be used to determine the fine-scale movements of caribou as they approach the Ekati Mine (and other infrastructure such as the Tibbitt-to-Contwoyto Winter Road). This type of information can be used to better understand the relationships among encounter rates with development and the behavioural responses and energetic changes in caribou. As stated in the response to the IEMA Technical Report, Dominion Diamond will collaborate with the GNWT on regional programs and actions, and work with the ZOI Technical Task Group to revise the WEMP to include monitoring methods to address the prediction that the Project will not affect the size and magnitude of the area of caribou avoidance, including methods for measuring the ZOI (PR #556).

As noted above, Dominion Diamond has also committed to expand the pilot study on dust suppressants into a more comprehensive trial on the Misery Road with the objective to determine the most effective product for mitigating dust from roads that could then be applied for off-site and on-site offsetting. The results from these dust studies would be included in the annual report for the WEMP, and inform adaptive management.

2.4 Caribou Mitigation Plan (Compensatory Mitigation)

Dominion Diamond has committed to the development of a CMP within one year of the acceptance of the Report of Environmental Assessment based on a framework for that Plan (response to hearing undertaking DAR-MVEIRB-UT2-06 [PR #673]). The CMP will consist of direct Project mitigation, financial support for research to inform future actions on the ZOI and the management of the Bathurst caribou herd, offsetting of any small residual impacts of the Project through enhanced mitigation (i.e., CRMP) to be applied to the entire Ekati Mine, enhanced studies on dust suppression, and accelerated progressive reclamation efforts for the LLCF and WRSA. Overall, the CMP will include adaptive management strategies, and mitigation actions to avoid, minimize, reclaim and offset adverse residual effects from the Project on Bathurst caribou. Dominion Diamond is open to engagement with all Parties to determine the most appropriate agencies and/or working/planning groups to provide the objectives, qualifications, distribution, and reporting protocols of the different elements of funding committed to in the CMP.

Dominion Diamond committed to engage with Parties, including the Wek'èezhii Renewable Resources Board, over the next year on the development of the full CMP including, at a minimum, another workshop to review and seek input into the Plan in the spring of 2016. Dominion Diamond also committed to ensuring that TK is used to inform the development of the CMP and will work with IBA communities on TK alignment during engagement on the Plan development.



The development of offset mitigation for caribou and other wildlife in the NWT is new and unprecedented. By definition, offsets need to be measurable so that their effectiveness at mitigating adverse residual effects can be assessed and known. Dominion Diamond has explained the challenges of measuring the particular offsets proposed by the Parties related to energy loss and calf production (Section 1.5). The GNWT also recognizes the difficulty of providing offsetting opportunities and approaches to measuring their value, and are committed to working with Dominion Diamond to developing an approach for measuring or quantifying the value of the proposed compensatory mitigation actions (GNWT 2015 [PR #693]).

The CMP is for offsetting residual effects from the Jay Project only, and not effects related to larger spatial and temporal factors (e.g., changes in the quality of food on seasonal ranges, fire, climate, harvesting, and predation). However, as part of the CMP, Dominion Diamond has committed to provide funding to better understand the key drivers in the system that caused the decline of the herd, a concern raised by the communities during the public hearings. Research is needed to determine the magnitude and spatial and temporal extents of the key factors limiting the Bathurst herd. The GNWT also agrees that research and monitoring can help reduce uncertainties underlying the predicted effects and effectiveness of mitigation, and understanding why the population is declining is of collective interest (GNWT 2015 [PR #693]).

2.4.1 Research Funding

A number of Parties have recommended increases to the funding for differing aspects of the proposed CMP. Dominion Diamond does not agree with these recommendations. The purpose of the CMP is to offset any negative residual impacts from the Project on the Bathurst herd. Dominion Diamond developed the framework for the CMP based on the recommendations of the Parties in the technical reports, and the discussion at the public hearings and the CMP workshop on October 1, 2015 (PR #674). This framework was not a bargaining position but a good faith proposal to address the concerns raised by the Parties. It is the position of Dominion Diamond that the CMP (which is linked to the CRMP) provides more than adequate additional mitigation and compensation to offset any small residual adverse effects from the Project on the herd.

A number of recommendations were made by Parties about the most appropriate body or bodies to manage the funding being proposed for research on the ZOI and the Bathurst herd. As Dominion Diamond committed during the follow-up conference call with the Parties on October 16, 2015 (PR #686), we will work with the Parties on the development of the final CMP that will address this issue. Given these issues involve many Parties from communities, government, and industry, Dominion Diamond is supportive of the funding going to the most effective body, including potentially a new body, as proposed by the GNWT.

As noted in the Traditional Knowledge section, Dominion Diamond agrees with the recommendation from the communities that financial support should be available for TK-based and community-based research and monitoring. Funding for this type of research could likely come from two components of the CMP: the Caribou Monitoring Strategies/Plan, and investigation into the factors driving the decline of herd (see Section 2.2). Dominion Diamond is open to engagement for discussing the most appropriate agencies and/or working/planning groups to provide the mandate and research objectives, qualifications, distribution, and reporting protocols the different elements of funding committed to the CMP.

2.4.2 Seasonal Hauling Limitations/Timing of Other Projects

Parties have suggested the incorporation of additional offsetting measures in the CMP. Examples include delaying or phasing in other activities, such as the Sable project, or scheduling winter-only operations at the Sable and/or Jay projects. Both of these measures are severely disruptive from an operational point of view.

It is important to point out that the assessment of the Jay Project was based on the hauling of ore on a year round basis to make efficient use of the Project infrastructure and ore haulage fleet, and included the construction and operation of the Sable project as a Reasonably Foreseeable Development.

The imposition of measures that seasonally restrict mine operations or prevent the efficient scheduling of other previously permitted and cumulatively assessed developments would create significant economic risks for the Ekati Mine as a whole. Ekati is a remote mine with high fixed costs. The Jay and Sable pipes are lower value and higher cost than pipes like Panda and Koala that were mined at the opening of the Mine. Dominion Diamond is confident that the Project can be developed profitably, but only if the Company has sufficient operational flexibility to invest efficiently.

2.4.3 Additional Caribou Security Deposit

A number of Parties have requested that a security deposit be provided to specifically offset demonstrated significant effects from the Jay Project to caribou. Dominion Diamond has provided scientific evidence in the DAR, and responses to Adequacy Review and IRs that the small changes in habitat quantity and quality, energetics, calf production and survival, and behaviour from the Project will not cause significant effects to the Bathurst herd. Dominion Diamond has also committed to the engagement and further development of the CRMP and CMP, which provides adequate additional mitigation and compensation to offset any small residual adverse effects to the herd.

If the Project is approved, reclamation security will be determined for the Jay Project during the permitting process through the WLWB. The security determination will be based on meeting the objectives of the closure and reclamation plan as approved by the WLWB.

2.4.4 Compensation to Provide Alternative Harvest or Cultural Activities

There have been requests from Parties for direct financial compensation to provide support for activities, such as community hunts and cultural activities, and to offset impacts on the ability to harvest caribou from the Project. As described in Section 2.2 above, the CRMP and CMP are expected to provide sufficient additional mitigation to compensate for any residual effects of the Project on the herd; thus, the Project should not influence the ability of communities to harvest caribou.

Dominion Diamond agrees with the principle of this recommendation to provide support for community hunts and cultural activities, but does not believe a measure is required. Dominion Diamond already has a program that provides funding, on an application basis, for cultural activities including for community harvests. Funding for community harvests is only provided in cases where funding is also provided by the GNWT.



2.5 Waste Rock Storage Areas

The LKDFN and IEMA have made recommendations related to the monitoring of the use of WRSAs by caribou. Dominion Diamond agrees with this recommendation and will include systematic monitoring of WRSAs, in addition to incidental reporting, as part of the WEMP. However, because of the typical high frequency and number of employees working on the WRSAs, incidental recordings of caribou are considered an important monitoring method for protecting caribou.

LKDFN has also made recommendations requesting enhanced reclamation measures for WRSAs to accommodate caribou. On October 9, 2015, Dominion Diamond provided a response to Undertaking 6 (DAR-MVEIRB-UT2-06 [PR #673]) that outlined compensatory mitigation measures to improve the health of the Bathurst caribou herd. Part 5 of the undertaking outlined a strategy for accelerated progressive reclamation of the existing Ekati Mine, which included a subsection on the WRSA access ramps for caribou.

The existing WRSAs at the Ekati Mine have been designed and built according to the specific plans for each storage area. The review of the designs, development, and ongoing monitoring is through the WLWB process. Dominion Diamond also has a reclamation plan for the Ekati Mine, the Interim Closure and Reclamation Plan (ICRP; BHP Billiton 2011), which was reviewed and approved by the WLWB. Therefore, reclamation activities considered under the CMP outlined in DAR-MVEIRB-UT2-06 focused on the progressive reclamation of approved activities under the ICRP (i.e., the caribou access ramps). This is an effective regulatory process designed to address this fundamental part of mine approval.

The moving or consolidating of WRSAs, flattening slopes, or re-vegetation are not reclamation activities that are included in the ICRP. Such activities could increase sensory disturbance effects and the existing zone of influence on caribou. In terms of progressive reclamation in the CMP, Dominion Diamond has focused on the WRSA access ramps because they are approved in the ICRP.

The existing ICRP has outlined conceptual locations for the WRSA wildlife access ramps; however, the specific locations of ramps, and design features of the WRSAs will require input from communities. Dominion Diamond has committed to engaging with Elders and IBA community members to obtain input on the number, location, and geometry of the ramps. The locations and design are to be defined based on this engagement with local communities and their understanding of caribou migration paths and observations made at the site prior to and during operations. Note that for the proposed Jay WRSA, caribou egress ramps will be constructed progressively as the Jay WRSA is built, rather than waiting until final reclamation as per current practice.

3 WATER QUALITY AND FISH

3.1 Introduction

Dominion Diamond recognizes the importance of protecting water quality. It was concluded in the DAR, and in the subsequent supplemental work undertaken through the EA review process, that there would be incremental changes to water quality in Lac du Sauvage and cumulative changes in water quality in Lac de Gras as a result of the Project and previous and existing developments. However, these changes would not increase the risk to the sustainability of the aquatic ecosystem, aquatic health, or the continued opportunity for uses of the water by humans, including traditional uses, and wildlife. The basis for this conclusion is the design of the Project's water management plan, which has been developed to be protective of the environment, and a comprehensive understanding of the water balance associated with the Project during all phases of the Project (e.g., site surface water flows and transfers, groundwater inflows, climate, pit closure conditions), and the receiving environment (e.g., watershed hydrology, lake volumes).

3.1.1 Water Management Plan

Dominion Diamond has developed a water management plan for the Jay Project (DAR Appendix 3A) that is protective of the environment. One of the key advantages of the water management plan is that any site discharge to the receiving environment, beyond that already licenced to the LLCF, is not required for at least the first five years of operations. Depending on the quality and quantity of inflows to the Jay Pit during pit development, as indicated from the various modeling scenarios completed in the DAR and through the EA review process (i.e., the Lower Bound Case to the EA Conservative Case), the need to discharge from the Misery Pit ranges between the latter half of mine life to potentially the final year of operations. As a consequence, the plan facilitates years of operational monitoring in the Misery Pit prior to discharge being required, allowing sufficient site-specific water quality monitoring data to be collected to understand the pit chemistry and to validate EA projections, and if necessary, modify water management to make sure operational and closure water quality objectives are met. To this end, Dominion Diamond has accepted the recommendations by IEMA (Measure 6; IEMA 2015 [PR #682]) and YKDFN (Recommendation 4.5.5 [PR #561]), and committed to developing and submitting a revised mine water management plan to the WLWB as part of the WLWB permitting process. This detailed plan will include further details of contingencies, monitoring and evaluation, adaptive management trigger thresholds, and timelines for implementation.

3.1.2 Permitting and Monitoring

After Project approval, the next step in the process is the permitting and regulatory phase of the Project. The WLWB is the appropriate regulatory Board for permitting requirements related to water quality and associated monitoring programs. Fisheries and Oceans Canada (DFO) is the regulatory agency that is responsible for mandating the provisions of the *Fisheries Act*, which would include regulatory requirements related to offsetting and fish-out.

Monitoring during construction and operations of the Project will identify if Project activities have the potential to result in impacts to the receiving environment. Operational monitoring data (e.g., data from the groundwater monitoring plan, seepage data from geochemical audits, pit and sump water quality data from the Surveillance Network Program [SNP]) will be collected within the mine footprint, and water

quality (along with other aquatics component) data (e.g., Aquatic Effects Monitoring Program [AEMP]) will be collected in the receiving environment. Additional monitoring will also be required as a condition of the *Fisheries Act* authorization for the Project.

In June 2015, Dominion Diamond submitted a Conceptual AEMP Design Plan for the Jay Project (Dominion Diamond 2015b [PR # [423](#)]) to the MVEIRB public registry and held a follow-up engagement workshop with regulators and communities. Dominion Diamond has committed to holding a second AEMP engagement workshop with regulators and communities to collect additional feedback prior to the submission of the AEMP Design Plan to the WLWB as part of the water licence application.

The AEMP, and the accompanying Response Framework that will be linked to all aquatics components in the AEMP (i.e., hydrology through to fish health and tissue), will be finalized through the WLWB's public review process as an expected requirement of the Ekati Mine Water Licence (as amended to incorporate the Jay Project). The operating details of the AEMP and Response Framework will evolve over time based on accumulated operational experience and ongoing analysis of monitoring data collected on site and in the receiving environment. This is provided for in the Ekati Mine Water Licence through a mandated 3-year re-evaluation process that requires the WLWB's 're-approval' of the programs. Therefore, operational details of the AEMP for the Jay Project will be determined by the WLWB according to its established process, which also includes community and regulatory review and operational updates.

There were a number of measures recommended to the MVEIRB by various parties regarding the AEMP for the Jay Project that Dominion Diamond suggests are operational details of the monitoring associated with the AEMP that are more appropriately determined by the WLWB for the reasons stated above. Examples include sampling of large-bodied fish (DKFN recommendation 2.7; DKFN 2015 [PR #[685](#)]), the Aquatic Response Framework (IEMA Measure 7; IEMA 2015 [PR #[682](#)]), and assessment of taxonomic change in plankton (IEMA Measure 8; IEMA 2015 [PR #[682](#)]).

Additionally, in the Kugluktuk Community Hearing, Dominion Diamond committed to the establishment of a long-term water quality monitoring program in the Coppermine River near the Hamlet of Kugluktuk in conjunction with the KIA in the form of financial assistance and/or in-kind contributions. The Hamlet of Kugluktuk is located downstream of the Project. As per their closing submission, the KIA is satisfied with Dominion Diamond's advancement on the Jay Project EA and commitments to date.

3.2 Meromixis

At closure, Dominion Diamond will pump the upper 50 metres (m) of water stored in the Misery Pit to the bottom of the Jay Pit. Both pits will be capped with freshwater pumped from Lac du Sauvage. Due to the density differences in the deep water in the bottom of the pit and the freshwater in the upper part of the pits, this approach will develop meromictic conditions in both pits, permanently isolating high TDS minewater from mixing with the overlying low total dissolved solids (TDS) water from Lac du Sauvage. Concerns have been raised by parties related to the formation and stability of meromixis in the Jay and Misery pits. Meromixis is a natural phenomenon that occurs in lakes as a result of water density (salinity or temperature) gradients and commonly occurs in pit lakes (see responses to DAR-IEMA-IR-16, DAR-LKDFN-IR-05, DAR-MVEIRB-UT2-14 [PR #[305](#) and #[673](#)]).

As part of the DAR, Dominion Diamond developed a hydrodynamic model to evaluate the stability of meromixis in the Jay and Misery pits at closure. The model indicated that meromixis will form and remain

stable. During the EA review period and in consultation with GNWT, MVEIRB, and their consultants, several additional model scenarios were completed to address uncertainty in model predictions. These included a Reasonable Estimate Case and Lower Bound Case. An unrealistic extreme wind scenario was also evaluated. In all model scenarios, meromixis was predicted to form in both the Jay and Misery pits and remain stable in post-closure, even in the unrealistic extreme wind scenario.

The scientific literature also supports that meromictic conditions will form in the Jay and Misery Pits. Research (e.g., Boehrer and Schultze [2006]) has shown that pit lakes are more favourable to the development of meromictic conditions because of their shape (geometry); these pits are typically cone-shaped with a small surface area to depth ratios. The small surface area reduces the fetch of the lake (i.e., the distance travelled by wind or waves across open water) and the large depths of the pit (approximately 300 m) require large amounts of energy force mixing processes into the deep layers. The small fetch limits the influence wind and wave action will have on the surface waters of the pit to generate the energy needed to mix the water column of the pit, even to the depth of mixing measured in the surrounding large lakes, such as Lac du Sauvage and Lac de Gras. Although the Jay Pit will be connected to Lac du Sauvage, the majority of the dike around the pit will be left in place, which will act as a wave barrier and wind break reducing wind driving mixing and seiching in the Jay Pit, while still providing sufficient connectivity to the rest of Lac du Sauvage to allow for circulation of surface waters and fish movement in and out of the Jay Pit area.

The formation of meromixis has been observed in several back-flooded pit lakes, which are thoroughly documented in the scientific literature. For example, Pieters and Lawrence (2014) presents a summary of several pit lakes that attained meromictic conditions in Northern Canada, and Boehrer and Schultze (2006) provide several examples of North American and international meromictic pit lakes. The congruence of some of the pits lakes cited in these documents to the Jay and Misery pits was documented in the response to DAR-GNWT-IR-62 (PR #[305](#)).

During the Project technical sessions in April 2015 and in their technical report, GNWT presented a ratio of the mixolimnion (upper layer) to the monimolimnion (lower layer) TDS concentrations of the Jay and Misery pits, and those of the meromictic lakes referenced by Dominion Diamond (see response to DAR-GNWT-IR-62 [PR #[305](#)]), to characterize and compare the potential stability of the pits to the referenced pit lakes. The GNWT noted that the projected ratios of the Jay and Misery Pits were much lower than the ratios for each of the referenced pit lakes. While Dominion Diamond maintains that this ratio is only as a high level indicator of the stability of the meromictic conditions, it does not consider other variables that will influence meromictic stability to varying degrees (e.g., seasonality, lake depth, mixolimnion and monimolimnion volumes, and temperature). Nevertheless, in comparison to the referenced pit lakes, Dominion Diamond explained that the much lower ratio expected in the Misery and Jay pits is a consequence of differences of the sources of the upper to lower pit waters; the pit lakes will be developed by pumping freshwater containing very low TDS concentrations from Lac du Sauvage and placing this over minewater with much higher TDS concentrations. These low ratios of the mixolimnion to the monimolimnion TDS concentrations of the Jay and Misery pits, presented by GNWT, actually provides additional supporting evidence that the projected meromictic conditions are more stable than the other referenced pit lakes.

A more reliable indicator of the stability of meromixis is the meromictic and salt deficit ratios. In the second round of IRs, GNWT requested Dominion Diamond calculate meromictic and salt deficit ratios for



the Jay and Misery pits. As noted in the response to DAR-IR2-GNWT-08 (PR #[448](#)), the salt deficit and meromictic ratios were much larger in comparison to other northern pit lakes cited in Pieters and Lawrence (2014). This difference is due to the large mixolimnion volumes and the density difference occurring between the upper and lower layers of the pits as a result of pumping a substantial amount of freshwater to the pits to cap the underlying high TDS minewater at closure. Increased salt deficit and meromictic ratios are indicators of the likelihood of a pit lake to be meromictic, with stability increasing as the ratio increases. Therefore, the higher ratios predicted for the Jay and Misery Pits also support the conclusion that meromixis will occur in the pits at closure.

Dominion Diamond is confident in the predictions related to meromixis and the proposed water management to engineer the development of meromixis is achievable and scientifically feasible. However, in the unlikely event that the pit(s) were overturned, it is not anticipated that turnover would result in a significant adverse effect on the maintenance or suitability of water to support a healthy and sustainable ecosystems in Lac du Sauvage and Lac de Gras, or on the continued opportunity for the traditional use of water, including use as a drinking water source. MVEIRB requested this modelling be completed during the second round of IRs and concentrations were predicted to be less than aquatic life and drinking water guidelines. Details of the analysis were provided in DAR-MVEIRB-IR2-24 (PR #[448](#)). As discussed in the Hearing (Day 3 hearing transcript page 145-146 [PR #[663](#)]), if this unlikely event were to occur, this would also be expected to be a short-term event, with the pit(s) expected to re-stratify over time.

Based on all the lines of evidence presented during the technical review of the water quality modelling conducted to date, and the review that will be conducted by the WLWB and its technical reviewers in the permitting process, Dominion Diamond disagrees with the recommendation related to the establishment of an independent panel to evaluate meromixis (LKDFN recommendation 1; LKDFN 2015 [PR #[697](#)]) or for additional independent review of the pit hydrodynamic modelling (NSMA recommendation 14; NSMA 2015 [PR #[695](#)] and Tłıchǵ Government recommendation 2; Tłıchǵ Government 2015 [PR #[694](#)]). In the DAR, and throughout the EA review process, Dominion Diamond has provided sufficient evidence to show that meromixis will form and remain stable.

Dominion Diamond has also committed to reviewing operational monitoring data from the pits, collected from the onset of mine operations, which would be compared to the DAR assessment findings and other modelled scenarios, and to updating pit closure models, if required (based on operational monitoring data). Dominion Diamond has also committed to monitoring to confirm the predicted development of the meromixis in the Misery Pit (see response to DAR-GNWT-IR2-09 [PR #[448](#)]).

The water management plan and the ICRP are the WLWB-mandated mechanisms that will detail the back-flooding process and objectives; they will also provide an outline of the pit monitoring requirements during operations and adaptive management that include action levels to identify if modelled projections deviate from expectations and potential risk to closure objectives. These plans require WLWB review and approval, which includes broad community and regulatory engagement. The WLWB process of management plan review and approval (especially the water management plan and closure and reclamation plans, in this case), is the appropriate regulatory review mechanism to meet the intent of this recommendation and as such, a separate, independent panel is not required.

3.3 Misery Pit in Post-Closure

Through the EA review process, concerns were raised by MVEIRB, Environment Canada, and the GNWT on the long-term post-closure Misery Pit water quality. However, as indicated by Dominion Diamond in the technical report responses and in the hearing, there is sufficient flexibility in the closure elements of the water management plan to modify the depth of the freshwater cap in the Jay and Misery pits so that closure objectives for water quality in the surface layer of the pits will be achieved. While several water quality constituents were projected to increase above generic water quality guidelines under the Reasonable Estimate Case, with a freshwater cap thickness of 60 m (MVEIRB-UT-12, DAR-GNWT-IR2-06), increasing the depth of the freshwater cap will reduce the water quality constituent concentrations in the pit surface waters below these guidelines (DAR-GNWT-IR2-06). Dominion Diamond has committed to an optimization study to evaluate the appropriate depth of the freshwater cap based on operational monitoring data. As described in the response to DAR-EC-IR2-02, the Misery Pit lake will be incorporated into subsequent amendments of the ICRP, and as such, will meet the closure objectives for pit lakes at the Ekati Mine (Section 5.2.7 of the Ekati Mine ICRP, includes meeting closure water quality criteria). The ICRP and the objectives for pit lakes within the plan have been approved by the WLWB.

In its closing submission, the GNWT has a recommended measure requiring an increase to the Misery Pit freshwater cap such that "the surface water will meet the current CRP Objectives which includes traditional use (<500 mg/L TDS)". As described above, Dominion Diamond agrees with meeting appropriate closure objectives for the Misery Pit as described in the ICRP; however, Dominion Diamond believes the appropriate venue for the determination of closure criteria (e.g., specific concentrations for specific water quality constituents) for the pit lakes is through the WLWB as part of the closure and reclamation planning process, which has its own engagement processes. The discussion and subsequent agreement related to the appropriate modelling scenario(s) and input parameters needs to be part of closure planning. Dominion Diamond is committed to being protective of the environment and satisfying closure goals and objectives; as such, the performance of the Misery Pit will be evaluated based on operational monitoring data, with the final determination of the freshwater cap depth determined based on the optimization study prior to closure.

3.4 Local Scales

The GNWT has requested that MVEIRB include a measure that minimizes impacts at the local scale. Dominion Diamond would like to reiterate that the design of the Project and especially the water management plan and their commitment to monitoring and adaptive management will result in protection of the environment. Dominion Diamond, therefore, does not disagree with the need for the Project to be protective of the environment at the local scale, but believes that such a measure is unnecessary and premature in light of the WLWB's permitting process.

As described in the response to the GNWT Technical Report, the operation of the mine will be undertaken through the oversight of WLWB-approved monitoring programs and management plans, which outline mitigations, limits and action levels for evaluation of monitoring data, adaptive management strategies and contingencies, and the details of each of the monitoring programs. Through the WLWB permitting process, approval of these management plans, such as the water management plan, and monitoring programs is achieved following a review process, which includes a high level of engagement.

Monitoring at the local-scale level will include: dike construction monitoring at locations close to the dike (part of the water quality monitoring and management plan for dike construction); seepage surveys as part of the Waste Rock and Ore Storage Management Plan; SNP monitoring within the mine footprint (including Misery Pit, the receiving environment, which includes the mixing zone); and AEMP monitoring in the receiving environment (e.g., Lac du Sauvage, the Narrows, small lakes and streams). The locations and frequency of sampling associated with each of these monitoring programs will be developed in the permitting process with the WLWB. GNWT also references Leslie and Kodiak lakes. Both of these lakes are sampled as part of the existing Ekati Mine AEMP (ERM 2015); it is recommended that any suggestions related to the monitoring of these lakes be through the WLWB engagement on the AEMP and ongoing re-design process.

3.5 Alternative Discharge Scenario

GNWT has recommended that the MVEIRB include a measure requiring that effluent discharge from Misery Pit be managed such that sufficient storage volume is available in later years to curtail effluent discharge volumes in Years 9 and 10 (which should include an evaluation of discharging effluent in Year 3). As described in the response to the GNWT technical report related to this recommendation (PR #555), Dominion Diamond disagrees with this recommendation on the basis that it is overly prescriptive and does not allow for adaptive management that will otherwise occur when operational data become available. Dominion Diamond is confident that the water management plan proposed for the Project is robust and protective of the environment. As mentioned in the DAR and throughout the EA review process, one of the key advantages of the mine water management plan is that there is no overlapping minewater discharge with the Diavik Mine.

During the discussion of the alternative discharge scenario in Day 3 the public hearing (September 16, 2015 transcript pages 52 to 57 [PR #663]), Dominion Diamond restated the rationale for disagreeing with the recommendation, but also indicated that there is flexibility in the water management strategy to discharge earlier in the mine life if it is determined during the early years of operation that there are benefits to doing so. However, the supplemental modelling scenarios undertaken following the DAR suggest that the requirement for Misery Pit discharge may be later than presented in the DAR (i.e., Year 7 for the Reasonable Estimate Case and Year 10 for the Lower Bound Case). Therefore, the collection of operational monitoring data in Misery Pit in the initial years of the mine operation will allow for tracking against these modelling scenarios and provide an indication of when discharge is required.

The determination of the timing for initiating discharge will be based on the review of the monitoring data of water quantities and quality in the Misery Pit (i.e., dependent on the groundwater inflows to the Jay Pit) and tracking against the various modelling scenarios (i.e., Updated Assessment Case, Reasonable Estimate Case, Lower Bound Scenario). As part of that ongoing data review and tracking, there will be an opportunity to calibrate and update the water quality model as necessary. It should be noted that delaying discharge to allow for additional years of monitoring data will be useful for better understanding conditions within the pit and for making adaptive management decisions. As discussed in the responses to IRs (DAR-GNWT-IR-58, DAR-EC-IR-15, DAR-GNWT-IR2-05, DAR-MVEIRB-IR2-23 [PR #305 and PR #448]), technical sessions, and hearings, contingencies related to adaptive management of the mine water management plan includes maintenance of contingency storage in the Misery Pit (approximately 3 million cubic metres (m³) throughout the operations stage for use as emergency minewater storage (upper 10 m of the pit).

Therefore, for the reasons stated above, Dominion Diamond recommends against the MVEIRB mandating the curtailing of discharge in years 9 and 10. Future conditions related to adaptive management of the mine water management plan, if necessary, will undergo the WLWB public review and approval process based on operational monitoring data collected from Misery Pit during operations. Dominion Diamond suggests that this approach is the most appropriate way to provide necessary operational flexibility and to enable effective adaptive management that is able to evolve over time as intended. This approach will also enable the beneficial use of the site-specific water quality data that will be collected early in Project operations.

3.6 Mercury and Sediments

As discussed in the Day 3 of public hearing (September 16, 2015 transcript pages 36 to 38 [PR #[663](#)]), an additional sediment sampling program was completed in the proposed diked area of Lac du Sauvage with the results provided in the response to Undertaking #11 (response to DAR-MVEIRB-UT2-11 [PR #[673](#) and PR #[687](#)]). As described in the response, sediment mercury concentrations from all five stations within the proposed diked area were below the Canadian Council of Ministers of the Environment Interim Sediment Quality Guideline, and the probable effects level guidelines (CCME 2001) for the protection of aquatic life. Therefore, the two previously reported sediment samples from Lac du Sauvage with exceedances to sediment mercury guidelines were considered anomalous and not representative of sediment mercury concentrations in this area. A transcription error was identified in Table 11-1 of the DAR-MVEIRB-UT2-11 for site Ac-15. As a result, an errata for this undertaking was submitted to the MVEIRB public registry on October 22, 2015, which updated the concentration for site Ac-15 in this table and provided the analytical reports in an appendix (PR #[687](#)).

As previously committed to in the responses to the LKDFN and IEMA technical reports (LKDFN recommendation 8 [PR #[557](#)] and IEMA recommendation 7 [PR #[556](#)]), a construction management plan will be developed during the detailed design stage of the Project that will provide details regarding the handling, placement, and management of sediments, and soils associated with the construction of the dike and Sub-Basin B Diversion Channel. Additional information regarding handling, placement and management of sediments and overburden associated with development of the open pit will be provided in the detailed design report for the Jay WRSA.

3.7 Fish

As discussed in the responses to DFO's technical report, Day 3 of the public hearing, and in DFO's closing submission, Dominion Diamond has committed to continue to work with DFO through the regulatory process, including providing DFO with detailed design and construction plans for the watercourse crossings and the Sub-Basin B Diversion Channel. As part of the DAR, Dominion Diamond included conceptual offsetting (Appendix 9A) and fish-out (Appendix 9B) plans and has continued to engage with DFO and communities on these plans. These documents will be finalized through the DFO review process as is required under the *Fisheries Act*. Dominion Diamond has committed to continuing to engage with affected communities and DFO on the offsetting and fish-out plans during the regulatory phase of the Project and prior to developing the detailed plans (DFO recommendation 12 and DFO recommendation 13; GC 2015 [PR #[690](#)]).



4 AIR QUALITY

4.1 Ambient Air Quality Adaptive Management

As part of the EA process, Dominion Diamond responded to IRs and technical reports related to setting ambient air quality triggers (responses to DAR-MVEIRB-IR2-28 [PR #448], GNWT [PR #555], and NSMA technical reports [PR #558]), and conducted workshops and meetings (June 26, 2015 [PR #460] and July 20, 2015 [PR #538]) regarding the inclusion of an adaptive management framework as part of the Air Quality and Emissions Monitoring and Management Plan (AQEMMP). Dominion Diamond agreed with GNWT's suggested changes to the ambient air quality triggers for NO₂, PM_{2.5}, and TSP proposed in GNWT's Technical Report (PR #515) and presented in the Public Hearing.

4.2 Incinerator Monitoring, Testing, and Reporting

Dominion Diamond committed to 3-year stack testing during the Technical Sessions for the Jay Project. On September 22, 2015, Dominion Diamond met with the GNWT to discuss the appropriate timelines for incinerator stack testing reporting and the submission of adaptive management responses plans. From this meeting, Dominion Diamond and GNWT agreed to a reporting timeline that would be protective of the environment if an exceedance was to occur. This resulted in a change for the GNWT's proposed 60-day reporting timeline to a 90-day reporting timeline and the following response plan timing was changed to 120 days. Dominion Diamond and the GNWT agreed that re-stack testing the incinerators was important to determining the effectiveness of the response plan, and agreed on a revised wording that included reference to exemption from re-stack testing within six months of the initial failed stack test.

It is Dominion Diamond's view that the current operation of the incinerator, which includes an Incinerator Management Plan, reviewed annually and submitted to the WLWB for review and approval, and the monitoring and maintenance contained within, illustrates proper management of the incinerators is the appropriate reporting and review mechanism. This Management Plan, used currently at the Ekati Mine, along with the agreed upon 3-year stack testing, reporting schedule and response plan agreed on with the GNWT are protective of the environment and mitigate the potential for significant adverse effects from the Jay Project.

4.3 Dust, Snow, Lichen Triggers

During the EA process and stated in Dominion Diamond's Technical Report response to IEMA, Dominion Diamond has committed to engagement on future versions of the AQEMMP, including on the development of appropriate adaptive management triggers for dust, snow, and lichen. The engagement schedule for the Conceptual Jay AQEMMP was submitted to the Review Board on July 24, 2015 (PR #487). Dominion Diamond will continue with the committed Dust Suppression Pilot Study as discussed in the Caribou Compensatory Mitigation section (Section 2.4).

4.4 Greenhouse Gases

Several parties included suggestions or recommendations related to greenhouse gas reductions. As part of the responses to the NSMA and LKDFN technical reports (NSMA recommendation 7 [PR #558], LKDFN recommendation 22 [PR #557]), Dominion Diamond committed to conducting a concept study of additional potential investments in alternative energy including areas, such as wind and solar energy, with a summary of results to be made publicly available within one year of the MVEIRB's Report of

Environmental Assessment. Dominion Diamond's interest in alternative energy is motivated, in part, by the extremely high costs of purchasing, delivering and managing diesel fuel for remote northern locations with limited accessibility, such as the Ekati Mine.

Dominion Diamond is already implementing projects that reduce diesel fuel use, and thereby, greenhouse gas emissions. Current examples of Dominion Diamond's efforts have been previously described to the MVEIRB and include: installation of an industrial composter that reduces waste incineration (responses to IRs DAR-EC-IR-05, DAR-LKDFN-IR2-05, DAR-NSMA-IR2-4 [PR #305 and PR #448]); and the formation of a Greenhouse Gas and Energy Management Steering Committee comprising of energy leaders in each area of the business for the purpose of identifying and implementing projects that will reduce fuel use and greenhouse gas emissions (responses to IRs DAR-LKDFN-IR2-05 and DAR-NSMA-IR2-4 [PR #448]).

Dominion Diamond's concept study of potential alternate energy sources for the Jay Project will identify which, if any, alternate energy sources may be potentially viable for the Jay Project, at which point, a feasibility level study would be the appropriate next step. This means that Dominion Diamond's future studies are necessary prerequisites to determining whether numerical targets for fuel/emissions reductions are appropriate (as recommended in the NSMA closing submission; NSMA 2015 [PR #695]). Dominion Diamond is aware of the Greenhouse Gas Strategy for the Northwest Territories (GNWT-ENR 2011) and will consider the Greenhouse Gas Strategy in the concept and future studies. It should also be noted that in the GNWT closing submission (page 6), the GNWT indicated that they will continue to work with Dominion Diamond on its alternative energy strategies; however, at this point in time, GNWT has no further comments or concerns to raise with respect to greenhouse gas emissions (GNWT 2015 [PR #693]).



5 SOCIO-ECONOMICS

As an extension of an existing mining operation, the Jay Project can be expected to have an overall net-positive effect on the socio-economic environment in IBA communities and the territorial economy by maximizing economic, employment, and educational benefits, while minimizing potential negative impacts on well-being, physical infrastructure, and non-traditional land use.

The Project will extend the life of the Ekati Mine by 10 years, and will provide employment and contracting during operations similar to the current Mine. The construction phase will also provide significant new contracting and short-term employment opportunities. Since purchasing the Mine, Dominion Diamond has moved aggressively to build a strong northern workforce at the Ekati Mine, including the decision to cancel the southern charter and fly workers only from designated NWT communities and from Kugluktuk in Nunavut to the Mine site.

As a result of our efforts over the past two years, 64% of our direct employees in 2014 were from the North. As well, the majority of our contracting is done by northern and Aboriginal owned companies, thereby providing greater northern benefits and employment

Dominion Diamond believes the extension of the Ekati Mine is of critical importance to the NWT. Dominion Diamond currently employs more northern and northern Aboriginal people than any other northern company and we spend more than a quarter of a billion dollars annually with northern companies. During the life of the Jay Project, Dominion Diamond expects to contribute over \$6 billion to the gross domestic product of the NWT, and to generate over \$270 million in direct corporate taxes payable to the territory. The Jay Project will also see Dominion Diamond continue to provide specific benefits and defined hiring and contracting benefits to our nine IBA communities.

For the NWT as whole, the Jay Project serves to soften the adverse economic and population effects of the closures of other operating mines. In short, Dominion Diamond believes that there will be a significant adverse effect on the economy and population of the NWT if the Jay Project does not proceed.

5.1 Barriers to Women Entering the Workforce

Dominion Diamond has addressed many of recommendations related to socio-economic matters raised by the Parties in the responses to IRs and Technical Reports. However, the NSMA have raised a number of new recommendations related to addressing the barriers to women entering the workforce, particularly for the mining industry.

Dominion Diamond previously responded to concerns related to barriers to the training and employment of women in the response to IRs DAR-NSMA-IR-27, DAR-NSMA-IR-29, DAR-NSMA-IR2-01 (PR #[305](#)) and in the response to the NSMA Technical Report (PR #[558](#)). In summary, Dominion Diamond has taken a number of specific activities to try to minimize these barriers, where possible in its own workforce, including:

1. Dominion Diamond provides scholarships in the support of educational attainment, with the aim of removing barriers associated with the cost of an education.
2. Dominion Diamond will continue to run the Women in the Workforce Program, designed to promote the training, hiring, and advancement of women in non-traditional roles.

3. On a case-by-case basis, Dominion Diamond evaluates alternate schedules for women with children, including flexible office hours for Yellowknife-based staff, and flexible rotations for mine-site workers, such as a four (4) days on / three (3) days off rotation instead of a two (2) weeks on / two (2) weeks off rotation. This shorter period away from home allows some women to split caregiver duties with another family member, or to use other childcare arrangements as available.
4. Dominion Diamond is committed to maintaining a workplace free of discrimination and/or hostility towards women. The Company has a Harassment & Discrimination Policy that outlines the process individuals can follow in raising a concern of harassment and/or discrimination and having the concern addressed in a timely fashion.
5. Dominion Diamond is also committed to engaging with communities to provide information to potential female employment candidates that encourages their application, and reiterates the company's zero tolerance policy towards harassment and gender discrimination.
6. Dominion Diamond has implemented a Recruitment Policy that ensures qualified female applicants are given priority consideration for both traditional and non-traditional roles. With the creation and institution of this formal policy, it is Dominion Diamond's goal to increase the proportion of women working for the Company over the operational life of the Jay Project.
7. Dominion Diamond will continue to support external organizations such as the Mine Training Society by providing work placements to students, including females, at the mine site with the view to ensuring students are able to gain practical hands-on work experience, but also enable them to experience life at the mine.

Dominion Diamond monitors the level of female labour force content at the Ekati Mine, as well as the prevalence of women in non-traditional roles. The mining industry in Canada as a whole has seen 14% to 17% female representation in the mining labour force since 2010 (MIHRC 2010; Statistics Canada 2015). In 2013, the rate of employment of women at the Ekati Mine was in line with the mining industry average at 15% of the total workforce. Dominion Diamond will take the following steps to evaluate the status of the employment of women at the Ekati Mine, and to develop strategies to improve performance:

1. Dominion Diamond will track feedback received from Exit Interviews completed by exiting female employees to identify barriers to successful retention. If such barriers are identified, Dominion Diamond is committed to investigating what can be done to address the issue. Mechanisms to address barriers will be developed as part of Dominion Diamond's commitment to ongoing improvement, and will be specific to the issue in question.
2. Where employment barriers for women are seen as related specifically to social issues, Dominion Diamond is committed to raising these issues with the GNWT to determine how the two parties can work together to improve or remove the barrier that is being experienced.

In addition, Dominion Diamond evaluates its programs aimed at improving the training and recruitment of women in the North, and will continue to adapt programs in response to feedback from female employees and community members interested in a career in mining.

While it is beyond a single proponent is to address broad societal issues in their entirety, Dominion Diamond would be open to participating in a broader discussion with the Status of Women, government and industry partners to discuss strategies to address the barriers to women entering the workforce, particularly the mining industry.



5.2 Formation of an Independent Panel to Assess the Socio-Economic Impacts of the Jay Project

The NSMA made a specific recommendation for the formation of an independent panel of researchers or an advisory board to assess the socio-economic impacts of the Project in IBA communities. As noted previously, the Project is not a new development but the an extension of a mine that has been in operation since 1997 and already has a Socio-Economic Agreement (SEA) in place that will continue for the life of the Project. In addition, Dominion Diamond and the GNWT have made commitments to improve the reporting of the provisions of the SEA, including to IBA communities, in this process.

Therefore, Dominion Diamond does not agree with this measure as proposed by the NSMA. We would note, however, if there were to be a larger initiative to assess the socio-economic impacts of mining in general on communities in the NWT, Dominion Diamond would be pleased to participate.



6 CONCLUSION

Dominion Diamond would once again like to thank all parties to the Environmental Assessment process for their participation and input into the review of the Project and to the Board and its staff for running an efficient and effective process. As detailed throughout these submissions, the input of other parties, including in many cases the direct input of local residents, TK holders, and technical consultants, has resulted in many improvements to the Project since the original application to the WLWB in October 2013.

Dominion Diamond is of the view that, when all of the TK and scientific information available to the Review Board is considered, it is clear that the Project will not result in a significant adverse impact on the environment or be a cause of significant public concern. Furthermore, Dominion Diamond has proposed adequate mitigation to address any small impacts that may occur as a result of the Project.

Therefore, Dominion Diamond respectfully requests that the Review Board determine under section 128 of the MVRMA that an environmental impact review of the Project need not be conducted and recommend to the Minister of Lands that the Project be approved subject to the commitments made by Dominion Diamond during these proceedings.

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APPENDIX A

JAY PROJECT

CONCORDANCE TABLE OF RECOMMENDATIONS FROM PARTIES' CLOSING SUBMISSIONS

Parties' Closing Submission	Subject	Recommendation	Applicable DAR Review Document(s) Submitted by Dominion Diamond
Diavik Diamond Mines (2012) Inc.	Monitoring and Mitigation	GNWT-ENR to include considerations for monitoring and mitigation, specific to impacts on Diavik, in the regulatory phase for the Jay Project.	Not applicable – not directed to Dominion Diamond
		DDEC to engage with DDMI to develop mutually acceptable monitoring and mitigation that ensure environmental changes caused by the Jay Project do not impact on DDMI's ability to operate or close the Diavik mine.	Conceptual AEMP Design Plan for the Jay Project; Technical Sessions (April 22, 2015 Transcript, Pages 240-243); DAR-MVEIRB-IR2-32; DDMI Technical Report Response, Section 2.1
		DDEC to advancing these monitoring and mitigation measures, with any necessary revisions, for review and acceptance by the Land and Water Board.	
		DDEC to advancing these monitoring and mitigation measures, with any necessary revisions, for review and acceptance by Diavik's Environmental Monitoring Advisory Board.	
		GNWT to fully recognize the impact of the Jay Project on Diavik's closure performance and ensure that DDEC monitoring and mitigation is in place to adequately separate environmental changes at the Diavik mine site caused by the Jay Project when evaluating relinquishment of DDMI's closure security.	Not applicable – not directed to Dominion Diamond
Deninu Kue First Nation	Air Quality	Dominion Diamond must develop an effective air quality mitigation and monitoring program to test the predictions of the DAR. This program must set measurable thresholds that are consistent with applicable regulatory ambient air quality standards. Where standards are not yet determined for the NWT, Dominion Diamond must use appropriate regulatory standards from other jurisdictions.	Conceptual AQEMMP for the Jay Project; DKFN Technical Report Response – Section 2.2; LKDFN Technical Report Response – Section 2.5; DAR-LKDFN-IR2-01; DAR-MVEIRB-IR2-28
Deninu Kue First Nation	Aquatics and Fisheries – Stream Crossings	We recommend Dominion Diamond design all road crossings of streams that provide habitat for fish (e.g. spawning of arctic grayling [<i>Thymallus arcticus</i>] in stream Ac35) or other mobile aquatic organisms as "bottomless" to maintain natural habitat conditions to the extent possible. In arctic environments of such climatic extremes, it is important to design stream crossings that will not result in "hanging culverts" and thus form obstacles to fish migration.	DFO Technical Report Response – Section 2.2.2; DAR-DFO-IR-06; DAR-MVEIRB-IR-16; DAR-MVEIRB-IR-17; DAR-MVEIRB-IR-56
Deninu Kue First Nation	Aquatics and Fisheries – Sub-Basin Diversion Channel	The current proposal for the design of the sub-basin diversion channel is vague and does not include specific design features that would ensure a channel morphology that will be suitable for fish migration, rearing and spawning. To ensure effects to fish and fish habitat do not occur, the design of the channel will need to be reviewed in detail before it is implemented. We recommend that boulder (>30 cm diameter) placements should be part of the design to ensure adequate channel roughness and current velocity shadows.	DFO Technical Report Response – Section 2.3.2; DAR-IEMA-IR-48; DAR-KIA-IR-98; DAR-MVEIRB-IR-68
Deninu Kue First Nation	Aquatics and Fisheries – Changes to Water Level	We remained concerned that water level changes between the Lac du Sauvage and Lac de Gras during project construction and operation may impact the movement of fish species between the two water bodies. We recommend that a detailed mitigation and emergency management plan to counteract these possible water level changes in the narrows and other shallow water migration corridors be a condition of the EA approval.	DFO Technical Report Response – Section 2.4.2; Conceptual AEMP Design Plan for the Jay Project; DAR-MVEIRB-IR-20; DAR-MVEIRB-IR2-20
Deninu Kue First Nation	Aquatics and Fisheries – Fish-Out Data	The DKFN is very interested in following up on discussion of potential offsetting options near the community of Fort Resolution. To inform the magnitude of offsetting compensation required, all fish independent of size need to be enumerated during the fish-out of the diked area in Lac du Sauvage. This information is needed to verify population estimates and can be used to verify fish numbers for compensation or offsetting accounts.	DAR-DKFN-IR2-07; Conceptual Fish-Out Plan (Appendix 9B of the DAR)

Parties' Closing Submission	Subject	Recommendation	Applicable DAR Review Document(s) Submitted by Dominion Diamond
Deninu Kue First Nation	Aquatics and Fisheries – Re-suspension of Fines within the Silt Curtains	We are concerned that after construction of the dike, the removal of the silt curtain will likely result in fine sediment being re-mobilized by wind and wave action, which can smother lake shoal spawning locations. Before the silt curtains are removed the accumulation of fines that have been deposited between the dike and the silt curtain needs to be monitored and removed or otherwise managed. We therefore recommend that the Mackenzie Valley Review Board suggest that Dominion Diamond complete management plan for all fines that will be accumulated between the dike and the silt curtain.	DAR-GNWT-IR-16; DAR-GNWT-IR2-15; DAR-GNWT-IR2-16
Deninu Kue First Nation	Aquatics and Fisheries – Stability and Predictability of Meromictic Conditions in Misery and Jay Pits	To our knowledge, all examples for stable meromictic conditions in mine pits provided by Dominion Diamond are based on examples from pit lakes that were not directly connected to a natural lake or pit lakes that have not yet been built (e.g., Geller et al. 2012, DeBeers 2010). All model assumptions for the stability of the meromictic conditions are based on these unrealistic examples as well. We therefore ask the Mackenzie Valley Review Board to ensure that Dominion Diamond will provide examples for pit lakes that have similar conditions to those found in the Jay and Misery Pits. As a minimum, examples should be based on direct water exchange to a natural lake that proves the concept of water layering stability suggested to prevent high total dissolved solids (TDS) mine contact water from reaching Lac du Sauvage. In the absence of such examples, we strongly support the Lutsel K'e Dene First Nation's proposal of the formation of an independent review panel or alternatively the hiring of an independent expert that will advise on: <ol style="list-style-type: none"> 1. The stability of the meromictic condition in the Jay and Misery Pits. 2. The monitoring needed to ascertain that no mixing through the chemocline occurs. 3. Correlate how the uncertain meromictic status observed by Pieters and Lawrence (2014), in mine pits that were predicted to have formed meromixis, to the Misery and Jay Pit examples. 	LKDFN Technical Report Response – Section 2.2; GNWT Technical Report Response – Section 2.2.4; Jay Project Modelling Compendium; DAR-EC-IR-22; DAR-GNWT-IR-58; DAR-IEMA-IR-16; DAR-IEMA-IR-17; DAR-LKDFN-IR-05; DAR-GNWT-IR2-08; DAR-MVEIRB-IR2-24; DAR-MVEIRB-IR2-26
		We recommend the Mackenzie Valley Review Board require Dominion Diamond to consider potential "seiching" in their approach.	Public Hearing Day 3 Transcript, page 42
Deninu Kue First Nation	Aquatics and Fisheries – Sampling of Large Fish Tissue to Determine Metal Accumulation	We support the Independent Environmental Monitoring Agency's recommendation that non-lethal large fish tissue sampling should be carried out to assess accumulation of metals in an apex predator such as lake trout (<i>Salvelinus namaycush</i>). Non-lethal tissue sampling of this species is possible with short gill net sets and continued attention to fish hitting nets for imminent removal, tissue sampling and release. Metal accumulation in apex predators is a very sensitive endpoint for metal accumulation through the food chain and should therefore be a permit requirement for the Jay Project. In addition, apex predators are often the species that are harvested by First Nations and high concentrations in apex predators can therefore have a direct human health effect.	IEMA Technical Report Response – Section 2.6
Deninu Kue First Nation	Aquatics and Fisheries – Chronic Toxicity Testing of Mine Water	We recommend that in addition to the acute (rainbow trout 96 hr- LC 50) toxicity testing, as a minimum, chronic toxicity testing of the mine effluent should be carried out following Metal Mining Effluent Regulations (MMER). In these tests, sub-lethal toxicity with endpoints such as a reduction in growth or reproduction, the sensitivity of a fish species, an invertebrate and an aquatic plant are tested when exposed to mine discharge for species-specific periods of time.	IEMA Technical Report Response – Section 2.9

Parties' Closing Submission	Subject	Recommendation	Applicable DAR Review Document(s) Submitted by Dominion Diamond
Deninu Kue First Nation	Bathurst Caribou Herd	We recommend that the Review Board determine that the Jay Project will have a significant effect on the ability of the Bathurst caribou herd to be self-sustaining and ecologically effective.	Caribou Mitigation Plan (DAR-MVEIRB-UT2-06); DKFN Technical Report Response – Section 2.2; DAR-GNWT-IR-65; DAR-IEMA-IR-36; DAR-KIA-IR-41; DAR-DKFN-IR2-06; DAR-MVEIRB-IR2-03 Adequacy Review Item 8.8 response DAR-MVEIRB-15
		It has been shown that caribou traditionally migrate through the area around the Jay Project. Going forward, the project must not act as a barrier to these caribou movements. Dominion Diamond must implement mitigation measures to ensure no sensory effects on caribou are realized and that no barrier effects from roads occur. This will relate to the timing of project activities, management of road traffic and construction and operation of the Jay waste rock facility.	Caribou Road Mitigation Plan; DKFN Technical Report Response – Section 2.2; YKDFN Technical Report Response – Section 2.2; IEMA Technical Report Response – Section 2.3; LKDFN Technical Report Response – Section 2.1; NSMA Technical Report Response – Section 2.7; Tłıchǵ Technical Report Response – Section 2.1; LKDFN Technical Report Response – Section 2.1
		To meet the goal of having the Bathurst caribou herd be a self-sustaining and ecologically effective population, Dominion Diamond must take specific actions to reduce the zone of influence. These can be related to dust monitoring and management, progressive reclamation of project infrastructure and/or timing of project activities when caribou are in the vicinity of the project.	
Deninu Kue First Nation	Closing	We recommend to the Mackenzie Valley Review Board that should the environmental assessment of the Jay Project be approved, explicit measures be attached to this approval to ensure effective mitigation, monitoring and follow up is applied for the protection of air quality, aquatic resources and the Bathurst caribou herd. In this regard, many of the environmental monitoring management plans for Jay Project are proposed to be submitted following the approval of the EA, during the permitting phase.	DKFN Technical Report Response – Section 2.3
Fisheries and Oceans Canada	Blasting	DFO recommends that the Developer revise their instantaneous pressure threshold limit of 100 kPa to 50 kPa, and recalculate the appropriate setback distances, in order to develop adequate monitoring and mitigation measures to address the effects of blasting on fish and reduce the risk of serious harm to fish as a result of the Jay Project. DFO also recommends that the Developer develop an appropriate blast monitoring and mitigation plan to ensure that peak particle velocities do not exceed 13 mm/s at shoal S4 during the time of Lake Trout egg incubation, including procedures to be followed in the event that blasts may exceed this threshold. DFO notes that DDEC has committed to developing a blasting plan for the Jay Project to avoid and mitigate serious harm to fish, and to engage with DFO on development and implementation of the plan as appropriate.	DFO Technical Report Response – Sections 2.1.2 and 2.1.4; DAR-IEMA-IR-11; DAR-Tłıchǵ-IR-19

Parties' Closing Submission	Subject	Recommendation	Applicable DAR Review Document(s) Submitted by Dominion Diamond
Fisheries and Oceans Canada	Water Crossings	DFO recommends that the Developer implement all available best management practices to avoid and mitigate serious harm to fish as a result of water crossing construction, operation and decommissioning. This includes the appropriate design of water crossings to facilitate fish passage at both high and low flows, timing windows that incorporate spawning, incubation and hatch times for all species using water courses, sediment and erosion control, protection and replanting of riparian vegetation, and other forms of bank stabilization. DFO also recommends that an appropriate water crossing maintenance and monitoring plan be in place to minimize the potential for barriers to fish passage to develop over the life of the water crossings. DFO notes that DDEC has committed to implementing best management practices, developing and implementing appropriate maintenance and monitoring plans to avoid and mitigate serious harm to fish.	DFO Technical Report Response – Sections 2.2.2 and 2.2.4; DAR-MVEIRB-IR-16; DAR-DFO-IR-06
		DFO also recommends that the Developer provide DFO with detailed engineering plans of all water crossings, supported by measured or modeled stream flow data, for review prior to construction. DFO also notes that DDEC has committed to providing detailed design and construction plans for the water crossings during the regulatory phase, and will engage with DFO as appropriate.	DFO Technical Report Response – Section 2.2.6
Fisheries and Oceans Canada	Sub-Basin B Diversion Channel	DFO recommends that the Developer implement all available best management practices in the design of Sub-Basin B Diversion Channel to avoid and mitigate serious harm to fish as a result of the diversion, as well as develop and implement an appropriate stream diversion maintenance and monitoring plan with appropriate sediment and control mitigation measures to ensure barriers to fish passage do not form over the life of the diversion channel. DFO also recommends that DDEC provide DFO with detailed plans of the diversion channel for review prior to construction, including such things as design, flows, stabilization, consideration of fish passage, erosion and sediment control, and detailed closure and reclamation plans for the Sub-basin B Diversion channel for review during the regulatory phase. DFO notes that DDEC has committed to appropriately designing the diversion channel to avoid and mitigate serious harm to fish (following restricted activity timing windows, providing channel flows that facilitate passage of Arctic Grayling during all life stages, reclaim disturbed riparian areas), and will implement an appropriate maintenance and monitoring that includes regular inspections to ensure the diversion channel is functioning as intended. DDEC has also committed to providing DFO with detailed design plans and detailed closure and reclamation plans for the Sub-Basin B diversion channel during the regulatory phase.	DFO Technical Report Response – Sections 2.3.2, 2.3.4, 2.3.6, and 2.3.8

Parties' Closing Submission	Subject	Recommendation	Applicable DAR Review Document(s) Submitted by Dominion Diamond
Fisheries and Oceans Canada	Lake C1/Stream C1 and the Narrows	<p>DFO recommends that water levels be monitored in Lake C1/Stream C1 and at depth-limiting locations in the Narrows during the open water season, particularly during years of low precipitation, extended drought or back-flooding of the pit at closure, to ensure that Project effects on these water bodies do not negatively impact fish passage or fish habitat. In addition, DFO recommends that a mitigation response or action plan be developed to mitigate the risk of the formation of barriers to fish passage or serious harm to fish in Lake C1/Stream C1 and the Narrows due to Project induced changes in water levels.</p> <p>DFO notes that DDEC has committed to engaging DFO and communities in the design of an Aquatic Effects Monitoring Plan (AEMP) and AEMP Response Framework that includes both hydrology monitoring of Lake C1, Stream C1, and the Narrows and early-warning action levels for changes that require actions to prevent serious harm to fish.</p>	DFO Technical Report Response – Sections 2.4.2 and 2.4.4; Conceptual AEMP Design Plan for the Jay Project; DAR-MVEIRB-IR2-20
Fisheries and Oceans Canada	Offsetting Plan and Fish-Out	<p>DFO recommends that during the regulatory phases, DDEC conduct additional consultation with affected communities regarding: a) the handling and fate of fish captured during the fish-out of the diked area in Lac du Sauvage, b) the development of appropriate quantification of fisheries productivity impacts in Lac du Sauvage and Streams Ac35 and BO, and c) options to offset the impacts of the Project on fisheries productivity that cannot be avoided or mitigated.</p> <p>DFO acknowledges that DDEC has committed to continue to engage DFO and the affected communities on the handling and fate of the fish from the fish-out of the diked areas in Lac du Sauvage, the development of the offsetting options and methods for quantifying fisheries productivity, during the regulatory phase of the Project.</p>	DFO Technical Report Response – Sections 2.4.7 and 2.5.2
Transport Canada	Navigability Assessment	<p>Transport Canada has focused on the review of the water-retaining dike on Lac du Sauvage and its related activities. Transport Canada has informed Dominion Diamond Ekati Corporation to submit information to Transport Canada to determine the navigability of Lac du Sauvage and the applicability of sections 21 to 23 of the Navigation Protection Act (NPA).</p> <p>Dominion Diamond has identified that the requested information will be provided to Transport Canada during the Jay Project permitting phase at which time the Navigation Protection Program will complete a navigability assessment.</p>	TC Technical Report Response – Section 2.1.2

Parties' Closing Submission	Subject	Recommendation	Applicable DAR Review Document(s) Submitted by Dominion Diamond								
Government of Northwest Territories	Air Quality	The GNWT requests that the MVEIRB include the wording of DDEC's committed triggering criteria, as listed below, in the final table of commitments in the REA.	GNWT Technical Report Response – Section 2.1; Public Hearing Day 1 Transcript, page 46								
		<table><tr><th>Action Level</th><th>Triggering Criteria for NO₂, PM_{2.5} and TSP</th></tr><tr><td>1st Action Level (no action required)</td><td>1) Concentrations below 80% of the applicable air quality standard -OR- 2) Less than 10% year to year increase in concentrations AND above 50% of the applicable air quality standard</td></tr><tr><td>2nd Action Level (internal review required)</td><td>1) Concentrations between 80% & 90% of the applicable air quality standard -OR- 2) 10% - 20% year to year increase in concentrations AND above 50% of the applicable air quality standard</td></tr><tr><td>3rd Action Level (external review required)</td><td>1) Concentrations above 90% of the applicable air quality standard -OR- 2) More than 20% increase year to year in concentrations AND above 50% of the applicable air quality standard</td></tr></table>	Action Level	Triggering Criteria for NO ₂ , PM _{2.5} and TSP	1 st Action Level (no action required)	1) Concentrations below 80% of the applicable air quality standard -OR- 2) Less than 10% year to year increase in concentrations AND above 50% of the applicable air quality standard	2 nd Action Level (internal review required)	1) Concentrations between 80% & 90% of the applicable air quality standard -OR- 2) 10% - 20% year to year increase in concentrations AND above 50% of the applicable air quality standard	3 rd Action Level (external review required)	1) Concentrations above 90% of the applicable air quality standard -OR- 2) More than 20% increase year to year in concentrations AND above 50% of the applicable air quality standard	
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Government of Northwest Territories	Water Quality	GNWT recommends that MVEIRB include a measure that minimizes impacts at localized scales from dike construction, dewatering, operation and closure of the Project site, and its associated project activities at the Ekati mine site, to the extent practical. These local boundaries should include the initial mixing zone, Lac du Sauvage, Leslie Lake, and Kodiak Lake.	GNWT Technical Report Response – Section 2.2.2								

Parties' Closing Submission	Subject	Recommendation	Applicable DAR Review Document(s) Submitted by Dominion Diamond
Government of Northwest Territories	Water Quality	<p>GNWT recommends that in order to prevent the potential for significant environmental impact to VCs (i.e. water quality and fish and fish habitat) in Lac du Sauvage and Lac de Gras during operations and post closure:</p> <ul style="list-style-type: none"> • MVEIRB include a measure requiring that effluent discharge from Misery Pit be managed such that sufficient storage volume is available in later years to curtail effluent discharge volumes in Years 9 and 10. This should include an evaluation of discharging effluent in Year 3. The above evaluation of management action should focus on accumulating the worst quality mine water within the Misery Pit to reduce toxicity concerns and impacts to Lac du Sauvage and promote more stable meromictic conditions post closure. • MVEIRB include a measure requiring that additional volumes of Mine Water from Misery Pit be pumped to Jay Pit at closure and an increase to the proposed water cap over Misery Pit Lake to a depth such that the surface water will meet the current CRP Objectives which includes traditional use (<500 mg/L TDS). Doing so would result in better water quality in the near surface waters of the Misery Pit Lake than predicted in this EA and result in better water quality post closure (i.e. the goal for long term mixolimnion concentrations should be ≤ 500 mg/L TDS). 	GNWT Technical Report Response – Section 2.2.4
Government of Northwest Territories	Wildlife and Wildlife Habitat	<p>To reduce significant adverse cumulative impacts to Bathurst caribou related to the Project, DDEC will develop a wildlife management and monitoring plan for approval by the Minister of ENR that will include, in addition to content and reporting requirements outlined in the GNWT's Draft WWHPP WEMP Guidelines and existing approaches in the conceptual WEMP, the following additional elements:</p> <ul style="list-style-type: none"> • Enhanced mitigation or offsetting actions identified in collaboration with the parties that will be applied throughout the Ekati mine or elsewhere, in addition to those proposed for Jay, that are intended to produce overall net benefits to the Bathurst herd. • Further details on the objectives for funds committed in Undertaking #6 including specific research questions determined in collaboration with parties, the process for administering any committed funds to the particular questions, how the information will be used by the DDEC or management bodies to assess or mitigate adverse impacts to the Bathurst herd, and how the results of the research or monitoring will be shared and reported. • A method for monitoring approaching caribou at a distance of approximately 2-4 km as the means to trigger road closures, and to adapt the Caribou Road Mitigation Plan to ensure substantial breaks (hours) in traffic through road closures and/or conveying and highly disturbing activities (e.g. blasting) to allow approaching caribou to pass. 	Caribou Mitigation Plan (DAR-MVEIRB-UT2-06); Public Hearing Day 2 Transcript, page 24

Parties' Closing Submission	Subject	Recommendation	Applicable DAR Review Document(s) Submitted by Dominion Diamond
Independent Environmental Monitoring Agency	Caribou	<p>1. To prevent a significant adverse impact to caribou, DDEC shall implement further measures to minimize the ecological disturbance footprint for the Jay Project as follows:</p> <ul style="list-style-type: none"> • selection of the Jay haul road route that minimizes disturbance to high quality caribou habitat (PR#305 DAR-IEMA-IR-28 and PR#356 Anne Gunn's proposed routing); • additional mitigation to reduce the effect of haul truck and other traffic on caribou (e.g., a dust management best practices document with adaptive management triggers for additional dust suppression; more precautionary traffic management to reduce sensory disturbance such as greater use of convoys and scheduling breaks in traffic); develop rules for blasting to reduce sensory disturbance; • investigate and implement an esker crossing that involves selection of less critical habitat, one-way traffic, buried power lines, remote sensory devices, and other innovative approaches; and • fund a panel of experts (beyond those involved in the current assessment and review) to help better design and monitor the results of the Jay Project infrastructure, including the crossing of the Misery esker system. 	IEMA Technical Report Response – Section 2.1; DAR-IEMA-IR-28; DAR-IEMA-IR-43; DAR-MVEIRB-IR-86; DAR-MVEIRB-UT-02; DAR-MVEIRB-UT2-08 Caribou Road Mitigation Plan
		<p>2. To prevent a significant adverse impact to caribou, DDEC, with other mine operators and GNWT where possible, shall develop and implement a collaborative research program designed to identify the causes of the Zone of Influence (ZOI) for caribou avoidance. The research findings will then be implemented to reduce the size of the ZOI on caribou. The results of the research program are to be summarized and reported annually to all interested parties as part of DDEC's annual report under its Wildlife Effects Monitoring Program. A target date for development of the research program is one year following the acceptance of the Measures by Responsible Ministers and implementation of the research results to reduce the ZOI within five years. DDEC shall commit to using the results of the research for the existing Ekati Mine.</p>	IEMA Technical Report Response – Section 2.1; Caribou Mitigation Plan (DAR-MVEIRB-UT2-06)
		<p>3. To obtain information needed to prevent a significant adverse impact to caribou, DDEC shall undertake aerial surveys to monitor relative caribou distribution and abundance and measure the effectiveness of mitigation measures for caribou currently in use for Ekati and proposed for the Jay Project. The aerial survey study area should be enlarged to include the extensions related to the proposed Jay Project and reasonably foreseeable Sable footprints. Given new analytical techniques, survey timing will be established in collaboration with interested parties but designed to track trends over time. DDEC shall produce estimates of ZOI distance and magnitude for the Jay Project (including the entire Ekati Mine) for the combined Ekati-Diavik study area using the new R code analysis. The results of the aerial surveys and analysis of the ZOI are to be reported annually (as appropriate) as part of DDEC's Wildlife Effects Monitoring Program reports, and will serve as means of measuring the effectiveness of Jay Project caribou mitigation and offsetting measures.</p>	IEMA Technical Report Response – Section 2.2

Parties' Closing Submission	Subject	Recommendation	Applicable DAR Review Document(s) Submitted by Dominion Diamond
		4. To prevent a significant adverse impact to caribou and to reduce public concern with the Jay Project, DDEC shall prepare an Offset Mitigation Plan for caribou. The purpose of the Plan is to enhance the ability of the Bathurst caribou herd to recover to its previous abundance as measured through reductions in energy loss, and positive changes in calf production and survival. The Plan should contain a suite of concrete offset measures, such as delays or phasing in other activities in the claims block including the Sable Project, or scheduling winter-only operations at the Sable and/or Jay Projects. The Plan should include means to evaluate the effectiveness of the measures. To the extent possible, the Plan should be developed collaboratively with interested parties, and shall be a condition of a land use permit for the Jay Project and in compliance with s. 95 of the Wildlife Act. The Plan should be prepared and circulated by DDEC to the Wek'èezhìi Renewable Resources Board, GNWT, Independent Environmental Monitoring Agency (IEMA) and affected Aboriginal governments within one year of the acceptance of the Report of Environmental Assessment and shall be in place before construction commences on the Jay Project. Offset measures should be reported on annually and evaluated by ENR, the Agency, community governments, and an independent expert panel, membership of which could be named by ENR, DDEC and the IEMA, and funded by DDEC. Based on this evaluation, the Plan should be adaptively managed annually to ensure its adequacy in offsetting impacts of Jay.	Caribou Mitigation Plan (DAR-MVEIRB-UT2-06); IEMA Technical Report Response – Section 2.3; DAR-MVEIRB-IR-90
		5. To prevent a significant adverse impact to caribou and to reduce public concern with the Jay Project, ENR use its authority under the Wildlife Act to require Wildlife and Wildlife Habitat Protection Plans (s. 95 of the Wildlife Act) from existing developments to reduce impacts on the Bathurst herd.	Not applicable – not directed at Dominion Diamond
Independent Environmental Monitoring Agency	Water – Surface Water and Minewater Management	6. To prevent a significant adverse impact to water quality, DDEC shall develop and submit to the Wek'èezhìi Land and Water Board for approval a revised Water Management Plan for the Jay Project within two years of initiating de-watering operations of the Jay Pit. The Plan shall include: <ul style="list-style-type: none"> • Identification of specific surface and minewater management contingencies including capacities (in terms of effluent volumes and mine production as expressed in operating days); • Design, construction and implementation timing for each identified surface and minewater management contingency option with sufficient lead times for design, construction and implementation; • Detailed monitoring of water quality and quantity to enable early detection of success or failure; and • Associated adaptive management trigger thresholds for implementation of contingencies. 	IEMA Technical Report Response – Section 2.4; YKDFN Technical Report Response – Section 2.5
Independent Environmental Monitoring Agency	Water – Effluent Toxicity to Zooplankton within Mixing Zone	7. To prevent a significant adverse impact to aquatic life in Lac du Sauvage from Jay Project effluent, DDEC shall develop a rigorous Aquatic Response Framework that includes early warning triggers for key indicator northern species as part of a robust Aquatic Effects Monitoring Program. The Framework shall be submitted to the Wek'èezhìi Land and Water Board for approval before any discharge of Jay Project effluent into Lac du Sauvage.	IEMA Technical Report Response – Section 2.9; DAR-GNWT-IR2-04; DFO Technical Report Response – Section 2.4; EC Technical Report Response – Section 2.2

Parties' Closing Submission	Subject	Recommendation	Applicable DAR Review Document(s) Submitted by Dominion Diamond
Independent Environmental Monitoring Agency	Water – Assessment of Taxonomic Change in Plankton	8. To prevent a significant adverse impact to aquatic life in Lac du Sauvage from the Jay Project, DDEC shall develop an Aquatic Response Framework for the approval to the Wek'ëezhii Land and Water Board that incorporates triggers and action levels for Lac du Sauvage plankton community taxonomic changes to prevent adverse impacts to fish populations. To support the Framework, DDEC shall carry out an annual assessment of plankton community changes based on changes in community structure and how these changes could ultimately impact fish populations of Lac du Sauvage. Impacts to various fish species and age classes are to be included. This assessment should be part of the Jay Project Aquatic Effects Monitoring Program.	IEMA Technical Report Response – Section 2.10
Independent Environmental Monitoring Agency	Waste Rock and Seepage Management	9. To minimize the likelihood of a significant adverse impact to aquatic resources from the Jay Waste Rock Storage Area (WRSA), DDEC shall develop and submit to the Wek'ëezhii Land and Water Board for approval a revised Waste Rock and Ore Storage Management Plan within one year of initiating overburden stripping operations. The revised Plan shall include: <ul style="list-style-type: none"> • Relevant information for the Jay WRSA including design, construction, monitoring and management of the facility; • Full justification and rationale for all proposed setbacks from water bodies; • A robust monitoring system (including thermal monitoring and/or internal water sampling) designed to provide early indicators or warnings on performance; • An adaptive management approach with clear triggers and action levels that lead to responses or actions to prevent Acid Rock Drainage; and • Annual reporting of monitoring results including any trigger exceedances and longer term reporting of trends. 	IEMA Technical Report Response – Section 2.11

Parties' Closing Submission	Subject	Recommendation	Applicable DAR Review Document(s) Submitted by Dominion Diamond
Independent Environmental Monitoring Agency	Air Quality and Dust Monitoring and Monitoring Site Locations	<p>10. To prevent a significant adverse impact to air quality, DDEC shall develop a revised Air Quality and Emission Monitoring and Management Plan for the Jay Project, collaboratively with interested parties and the GNWT before construction commences. The Plan shall include:</p> <ul style="list-style-type: none"> • specific triggers for air quality monitoring results for NO₂, PM_{2.5} and TSP that will result in adaptive management responses and actions including prevention and mitigation; • detailed actions and responses for tiered thresholds and action levels that will include a range of lead times from immediate action when necessary, but recognize longer term trends; • a plan and timetable to develop thresholds and actions in relation to dustfall, snow and lichen sampling results; • plans to manage road traffic to reduce fugitive dust including vehicle spacing, cameras for monitoring amount of dust (visibility), and triggers or thresholds when dust suppressant must be re-applied (e.g., adoption of the NWT twenty- four (24) hour air quality standard for TSP monitoring and mitigation along haul roads with exceedances resulting in immediate dust mitigation responses such as applying more dust suppressant or decreasing road traffic); • monitoring and sampling sites to capture dust, and sample snow and lichen on the northern and eastern shores of Lac du Sauvage and along the esker system, and other appropriate sites considering prevailing winds, habitat sensitivity and similar factors; and • explicit quality assurance and quality control protocols to ensure data reliability and properly functioning equipment. 	IEMA Technical Report Response – Section 2.12; Conceptual AQEMMP for the Jay Project; Draft Engagement Program for Amendments to the Ekati Mine Wildlife and Air Monitoring and Management Plans to Incorporate the Jay Project, July 24, 2015
Independent Environmental Monitoring Agency	Air Quality – Incineration Management Plan	<p>11. To prevent an adverse impact to air quality and related environmental impacts, DDEC shall submit to the Wek'èezhìi Land and Water Board for approval a revised Waste Management Plan within one year of initiating overburden stripping operations. The revised Plan shall include an updated Incinerator Management Plan that includes:</p> <ul style="list-style-type: none"> • A robust in-line continuous emissions monitoring (CEM) program of incinerator performance and stack gas concentrations; • Justification and rationale for all proposed CEM technology and methods; • An adaptive management approach with triggers and action levels that lead to responses and actions to prevent the release of unacceptable levels of pollutants; and • Annual reporting of monitoring results including any trigger exceedances. 	GNWT Technical Report Response – Section 2.2; DAR-GNWT-IR2-19; DAR-MVEIRB-UT2-05
Independent Environmental Monitoring Agency	Overall Conclusion	<p>12. DDEC and other parties to whom Measures and Suggestions have been directed shall report annually on progress made on the Measures, Suggestions and commitments recorded in the Report of Environmental Assessment for the Jay Project. DDEC's annual reporting on Measures, Suggestions and commitments is to be included in the Annual Report now submitted pursuant to the Environmental Agreement and water licence.</p>	IEMA Technical Report Response – Section 2.13
Kitikmeot Inuit Association	Water Quality	<p>A product of the Kugluktuk Community Hearing was a commitment from DDEC to establish a long term water quality monitoring program of the Coppermine River near the Hamlet of Kugluktuk in conjunction with the KIA in the form of financial assistance and/or in-kind contributions. The KIA looks forward to developing a water quality monitoring plan with DDEC in future phases of the Jay Project approval process.</p>	Kugluktuk Community Hearing Transcript, page 98 to 99

Parties' Closing Submission	Subject	Recommendation	Applicable DAR Review Document(s) Submitted by Dominion Diamond
Kitikmeot Inuit Association	Caribou	Kitikmeot Inuit possess substantial expertise regarding caribou and caribou predators and would be interested in participating in mutually beneficial programs designed to decrease caribou mortality rates from predation.	Kugluktuk Community Hearing Transcript, page 100
Kitikmeot Inuit Association	Traditional Knowledge	Traditional Knowledge (TK) is an invaluable resource when investigating wildlife behaviours and habitat. The KIA suggests that scientists/researchers, TK holders and active harvesters with knowledge of traditional harvesting areas which are in the vicinity of the Ekati Mine and Jay Project should collaborate to bolster and supplement what is currently accepted scientific knowledge about wildlife in the Jay Project study area. This updated knowledge could then be used to formulate an effective strategy to mitigate impacts of the Jay Project on caribou.	NSMA Technical Report Response – Section 2.1; LKDFN Technical Report Response – Section 2.7; Caribou Mitigation Plan (DAR-MVEIRB-UT2-06)
Lutsel K'e Dene First Nation	Air Quality	LKDFN recommends that any exceedance of the Ambient Air Quality Standards be considered a significant effect.	LKDFN Technical Report Response – Section 2.5; DAR-LKDFN-IR-11; DAR-LKDFN-IR2-01; DAR-MVEIRB-IR2-28; Conceptual AQEMMP for the Jay Project
Lutsel K'e Dene First Nation	Air Quality	LKDFN also requests that the GNWT complete legally binding air quality regulations as soon as practicable, and provide information to parties on the process and timeline for these regulations.	Not applicable – not directed at Dominion Diamond
Lutsel K'e Dene First Nation	Air Quality	LKDFN also recommends that the Developer prepare a dust management plan, including a comprehensive monitoring program that includes lichen sampling and details about dust suppression efforts at site. (LKDFN recognizes that the company has done much of this, but requests further work in this area.)	LKDFN Technical Report Response – Section 2.5; IEMA Technical Report Response – Section 2.12; Public Hearing Day 1 Transcript, page 76
Lutsel K'e Dene First Nation	Socio-economic impacts and monitoring	LKDFN recommends more stringent monitoring and stronger commitments to the SEA objectives. A good start would be a more structured reporting system for SEA indicators and increased transparency regarding discussions between the GNWT and the project proponent.	LKDFN Technical Report Response – Section 2.6; DAR-LKDFN-IR-18
		LKDFN requests that the GNWT conduct research into the effects of mining on socio-economic conditions in NWT communities. One way would be the establishment of an independent panel for the evaluation of socio-economic effects. LKDFN further requests that the GNWT refrain from making statements about a lack of effect from mining until it has conclusive evidence to support these statements.	
		LKDFN recommends a clear and explicit discussion of the SEA objectives in every edition of the Communities and Diamonds report. Where progress towards the achievement of an objective is determined to be lagging, there should be a list of clear and concrete measures being implemented to address this shortcoming.	
		LKDFN recommends a comprehensive monitoring plan for SEA objectives be developed for each of the affected communities in collaboration with the leadership in each community. This plan should clearly describe the methodology used for measuring each indicator within the community, as well as explicitly assigning accountability for each monitoring activity.	

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Lutsel K'e Dene First Nation	Use of Traditional Knowledge	LKDFN recommends that Traditional Knowledge be integrated in all discussions of any of the valued components for the remainder of planning and the entirety of operations, monitoring and closure.	LKDFN Technical Report Response – Section 2.7; DAR-IEMA-IR-37; DAR-IEMA-IR-42
		LKDFN recommends engaging the expertise of world-class experts to develop protocols, including practical measures, for the incorporation of Traditional Knowledge.	
		LKDFN recommends that the mine operator make efforts to provide access to traditional knowledge holders to the land around the mine site for observations to be compared to the historical knowledge in their possession. This could take the form of a land camp or other formal arrangement.	
		LKDFN recommends that concrete references be made in all further documentation to the Traditional Knowledge gathered for each component as the component is discussed, rather than relegating it to a separate section or annex.	
		Where Traditional Knowledge conflicts with scientific studies, LKDFN recommends a discussion of attempts made to reconcile the two knowledge sources, and failing reconciliation, a presentation of justification for choosing one over the other.	
Lutsel K'e Dene First Nation	Climate Change	LKDFN recommends as much information sharing about climate change adaptation measures as possible, and recommends that the Developer include a brief update during community visits.	LKDFN Technical Report Response – Section 2.8
Lutsel K'e Dene First Nation	Climate Change	LKDFN also recommends that the Developer continue and expand efforts to reduce emissions, especially in the area of alternative energy, pursuing similar initiatives to Diavik and their use of wind turbines.	LKDFN Technical Report Response – Section 2.8; NSMA Technical Report Response – Section 2.6
Lutsel K'e Dene First Nation	Regulatory Process	LKDFN recommends that the Government of the Northwest Territories, the Federal Government of Canada and major mine operators in the Northwest Territories hold meetings as soon as possible with the aim of agreeing upon a formal process to support the participation of communities impacted by development in the regulatory process.	Not applicable – not directed to Dominion Diamond
Lutsel K'e Dene First Nation	Caribou	LKDFN requests that the Board make a determination that the Jay Project would have significant, negative, cumulative impacts on the Bathurst caribou herd.	LKDFN Technical Report Response – Section 2.1; DAR-GNWT-IR-65; DAR-IEMA-IR-36; DAR-KIA-IR-41; DAR-DKFN-IR2-06; DAR-MVEIRB-IR2-03; Adequacy Review Item 8.8 response DAR-MVEIRB-15

Parties' Closing Submission	Subject	Recommendation	Applicable DAR Review Document(s) Submitted by Dominion Diamond
Lutsel K'e Dene First Nation	Caribou	LKDFN recommends that the Developer collaborate with impacted communities, the GNWT, and other mine operators to commission independent research into which elements of the project are having impacts upon caribou, their severity and innovative mitigation measures to reduce these impacts. This research should be comprehensive and encompass all aspects of the mine. LKDFN recommends increasing research and monitoring of known stressors, such as vehicle traffic and an increased Zone of Influence, while also expanding to areas where impacts are suggested but not well-researched, such as power-lines and light fixtures. Ideally, this research would be coordinated by a working group assembled for this task. The structure and mandate of this working group should be approved by all interveners in this regulatory process.	Caribou Mitigation Plan (DAR-MVEIRB-UT2-06); LKDFN Technical Report Response – Section 2.1
Lutsel K'e Dene First Nation	Caribou	LKDFN requests that separate and explicit funding be provided for TK research into caribou impacts that is to be developed in collaboration with implicated aboriginal parties, with final approval resting with the aboriginal parties.	
Lutsel K'e Dene First Nation	Caribou	LKDFN requests that a firm commitment to monitoring caribou in and around the mine site, including on the Waste Rock Storage Area until it can be demonstrated that all mine impacts on the herd have been reversed or until 20 years after mine closure. The monitoring approach and methodology should be approved by the aboriginal parties or an independent entity approved by the aboriginal parties.	
Lutsel K'e Dene First Nation	Caribou	LKDFN recommends that the Developer consult with affected communities and agree upon offsetting measures to mitigate the significant impacts to traditional livelihoods and the Bathurst caribou herd. This offsetting could include measures to improve conditions for caribou (for example, through improved and faster reclamation of disturbed habitat), measures to compensate for the loss of traditional livelihood opportunities and sustenance through the provision of alternate opportunities, or even direct financial compensation.	
Lutsel K'e Dene First Nation	Caribou	Given the company's confidence that the project will have no significant impacts on the Bathurst Herd, a position with which LKDFN disagrees, LKDFN recommends that the company be required to submit a security deposit to back up this claim. If indeed there are no perceived impacts on the caribou herd, then this security deposit shall be returned in full. If impacts can be demonstrated, then the security deposit is used for additional mitigation measures and offsetting. LKDFN recommends 10% of the current overall security deposit as an amount for this caribou-related deposit.	
Lutsel K'e Dene First Nation	Waste Rock Storage Area	LKDFN recommends that the Developer present an enhanced monitoring plan for monitoring the use of the WRSA by caribou.	LKDFN Technical Report Response – Section 2.3; DAR-MVEIRB-IR-85; DAR-Tłıchq-IR-29
Lutsel K'e Dene First Nation	Waste Rock Storage Area	Given that LKDFN considers all impacts to caribou significant and has asked for enhanced reclamation measures to accommodate caribou, LKDFN recommends that the Developer present options for innovative methods for enhanced reclamation of the WRSA to improve it as habitat for caribou to the extent possible. LKDFN would expect that these options would involve changes in the design of the waste rock pile and meaningful reclamation measures above and beyond what has been proposed to date.	LKDFN Technical Report Response – Section 2.3.3; Tłıchq Technical Report Response – Section 2.5; DAR-Tłıchq-IR-29; DAR-MVEIRB-IR-85; Caribou Mitigation Plan (DAR-MVEIRB-UT2-06)

Parties' Closing Submission	Subject	Recommendation	Applicable DAR Review Document(s) Submitted by Dominion Diamond
Lutsel K'e Dene First Nation	Waste Rock Storage Area	LKDFN recommends a revised WRSA management plan that includes adaptive management measures during mine operations and closure, but also options for longer-term adaptive management should seepage occur at any time post-closure.	LKDFN Technical Report Response – Section 2.3; DAR-EC-IR-07; DAR-EC-IR-09; DAR-GNWT-IR-15; DAR-GNWT-IR-24; DAR-IEMA-IR-03; DAR-IEMA-IR-22; DAR-KIA-IR-19; DAR-LKDFN-IR-04; DAR-MVEIRB-IR-36
Lutsel K'e Dene First Nation	Waste Rock Storage Area	LKDFN requests specific details for the management of sediments contaminated with mercury, along with specific measures to prevent mercury from entering any water bodies. LKDFN recognizes that the company has committed to this and has already presented some preliminary information, but we restate it here as it is an issue of particular concern for LKDFN members.	LKDFN Technical Report Response – Section 2.4; IEMA Technical Report Response – Section 2.5; DAR-MVEIRB-UT2-11 (Errata); DAR-GNWT-IR2-17; DAR-MVEIRB-IR2-02
Lutsel K'e Dene First Nation	Meromixis in Jay Pit	<p>LKDFN recommends that an independent review panel be established to thoroughly analyse:</p> <ul style="list-style-type: none"> a. the probability of meromixis being established; b. the probability of meromixis being maintained in perpetuity; c. the significance of impacts, both direct and indirect, if mixing were to occur; d. the geographic extent of impacts, should mixing occur; e. the likelihood of meromixis being re-established after mixing, should it occur, and estimates as to how much time would be required for this re-establishment, should re-establishment of meromixis be deemed possible. <p>LKDFN would like this panel to then present its findings as well as recommendations on:</p> <ul style="list-style-type: none"> a. adaptive management measures should it become evident that meromixis will not be established, these should include early warning systems to allow for identification of the issue as early as practicable, a fully fleshed out contingency plan for disposal of the minewater should disposal in the Jay Pit not be feasible due to mixing, and clear recommendations as to which organization would be accountable for these measures; b. similar adaptive management measures should a disturbance cause c. mixing during DDRC's operations in the Northwest Territories; d. options for minimizing the risk of mixing after DDRC can no longer practicably be held accountable for mine effects; e. options for adaptive management by the GNWT and other implicated parties for minimizing impacts should mixing occur in the distant future; <p>LKDFN envisions this panel to be similar in nature to panels established for the review of mine infrastructure, such as dyke review panels.</p>	LKDFN Technical Report Response – Section 2.2; DAR-EC-IR-22; DAR-GNWT-IR-58; DAR-IEMA-IR-16; DAR-IEMA-IR-17; DAR-LKDFN-IR-05; DAR-GNWT-IR2-08; DAR-MVEIRB-IR2-24; DAR-MVEIRB-IR2-26
North Slave Métis Alliance	Socio-Economics – Research Panel	NSMA recommends establishment of an independent panel of researchers or an advisory board, who will periodically assess the socio-economic impacts and programs in the IBA communities.	Not applicable – new recommendation

Parties' Closing Submission	Subject	Recommendation	Applicable DAR Review Document(s) Submitted by Dominion Diamond
North Slave Métis Alliance	Socio-Economics – Consultation with Women's Groups	Dominion Diamond will track feedback received from Exit Interviews completed by exiting female employees to identify barriers to successful retention. If such barriers are identified, Dominion Diamond is committed to investigating what can be done to address the issue. Mechanisms to address barriers will be developed as part of Dominion Diamond's commitment to ongoing improvement, and will be specific to the issue in question. DDEC will support and seek input from the Status of Women Council of NWT in the design of the "mechanisms to address barriers" and the design of the Exit Interviews.	DAR-MVEIRB-UT2-01; DAR-NSMA-IR2-01; DAR-NSMA-IR-27; DAR-NSMA-IR-29; Adequacy Review Items 11.1 to 11.5 responses
		Where employment barriers for women are seen as related specifically to social issues, Dominion Diamond is committed to raising these issues with the Government of the Northwest Territories to determine how the two parties can work together to improve or remove the barrier that is being experienced. Dominion Diamond and GNWT will invite the Status of Women Council of NWT to the discussion, and provide support as necessary so the Council can provide meaningful input towards the removal of the barrier that is being experienced by women.	
		Dominion Diamond evaluates its programs aimed at improving the training and recruitment of women in the North, and will continue to adapt programs in response to feedback from female employees, and community members, interested in a career in mining. DDEC will also re-engage and consult with Status of Women Council of NWT to identify and address relevant concerns related to women.	
North Slave Métis Alliance	Socio-Economics – Education Program	DDEC maintain the reinstated Workplace Learning Program and funding of adult educator positions, with the goal of improving the education literacy of employees, and that the continued operation of the program becomes a condition of the Report of Environmental Assessment.	Adequacy Review Items 11.1 to 11.5 responses; DAR-Tłı̨chq-IR-08; DAR-Tłı̨chq-IR-12; DAR-NSMA-IR2-01
North Slave Métis Alliance	Traditional Knowledge – Caribou Monitoring	NSMA recommends the establishment of an Expert Panel on Traditional Knowledge research program	NSMA Technical Report Response – Section 2.1; LKDFN Technical Report Response – Section 2.7
North Slave Métis Alliance	Caribou – Bathurst Herd Research	DDEC will commit, at a minimum, \$200,000 of direct financial support annually from the start of construction to mine closure, and \$100,000 of direct financial support thereafter until all adverse effects on the Bathurst caribou herd from mine development have been reversed	Caribou Mitigation Plan (DAR-MVEIRB-UT2-06)
		DDEC will commit to a Caribou Recovery Security deposit that is equivalent to 10% of the existing Ekati Mine security deposit required under the land use permit and water license	
		Establish Caribou Expert Panel	
		Caribou Expert Panel evaluate the Russell and Golder caribou models to determine which models to be used for the offset determination	

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		NSMA recommends that the research fund committed by DDEC to be set up to support independent research initiatives. The research fund may be managed by a collaborative board whose mandate it is to develop and implement a long term Bathurst caribou management plan. ENR and impacted parties including NSMA will be represented in the board, and will collaboratively manage the fund towards research that will help determine the magnitude and spatial and temporal extents of the key factors limiting the Bathurst herd	
North Slave Métis Alliance	Air Quality – Climate Change	The Project shall source 10% of its energy from renewable sources, if the conceptual study finds it economically feasible	NSMA Technical Report Response – Section 2.6
		DDEC shall develop a long-term GHG reduction strategy, with a target to reduce or offset GHG emissions from the Project by 80% within the operational life of the Project	NSMA Technical Report Response – Section 2.6; DAR-MVEIRB-IR2-29; DAR-LKDFN-IR2-05
North Slave Métis Alliance	Water – Expert Review of Meromixis Modelling	NSMA recommends the Review Board to provide a measure requiring an independent expert review of the hydrological modeling of the establishment of meromictic pit lakes in Misery and Jay pits.	LKDFN Technical Report Response – Section 2.2; DAR-EC-IR-22; DAR-GNWT-IR-58; DAR-IEMA-IR-16; DAR-IEMA-IR-17; DAR-LKDFN-IR-05; DAR-GNWT-IR2-08; DAR-MVEIRB-IR2-24; DAR-MVEIRB-IR2-26
North Slave Métis Alliance	Water – Water Quality after the Closure	The GNWT will commit to assume responsibility for the monitoring and management of meromictic pit lakes at Ekati site, after the liabilities of Dominion Diamond or any other subsequent owners of the Ekati mine are relinquished. The government will ensure, through appropriate levels of monitoring and management, the water quality of Lac du Sauvage and Lac de Gras will be suitable for traditional use by Aboriginal peoples.	Not Applicable – not directed to Dominion Diamond
Tłı̨chǫ Government	Socio-economics	Tłı̨chǫ Government requests the Board to set a measure that DDEC maintain the reinstated Workplace Learning Program and funding of adult educator positions, with the goal of improving the education literacy of employees, and that the continued operation of the program becomes a condition of the Report of Environmental Assessment.	Adequacy Review Items 11.1 to 11.5 responses; DAR-Tłı̨chǫ-IR-08; DAR-Tłı̨chǫ-IR-12; DAR-NSMA-IR2-01
Tłı̨chǫ Government	Water and Fisheries	Tłı̨chǫ Government recommends the Board set a condition requiring an independent third party review, by an expert familiar with the modeling predictions for pit stratification at closure (CE-QUAL-W2 model – ref: Cole and Wells 2008, expertise should be with version 3.5 or higher).	LKDFN Technical Report Response – Section 2.2; DAR-GNWT-IR2-07
		The Tłı̨chǫ Government affirms the need for specific commitments in the Commitments Table, namely all of the offsetting conditions. Dominion states they are committed to identify potential offsetting measures for the Jay Project that meet community interests and meet the requirements of the Fisheries Protect Policy Statement (DFO 2013) and comply with applications for Authorization under the Fisheries Act Regulations.	DAR-DKFN-IR2-07; Jay Project Final Commitments Table; Conceptual Offsetting Plan (Appendix 9B)

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Tłıchq Government	Caribou	Given we expect there will be impact on the Bathurst caribou herd, the Tłıchq Government recommends the Board require that there be direct project mitigation.	Caribou Mitigation Plan (DAR-MVEIRB-UT2-06) Tłıchq Technical Report Response – Section 2.1
		Given we expect there will be impact on the Bathurst caribou herd, the Tłıchq Government recommends the Board require DDEC will provide additional financial offsetting to support traditional knowledge-based research on impacts to the Bathurst Herd from diamond mining. This will include a yearly provision equivalent to the amount provided to support western research to support TK- research, and a minimum-security deposit of 10% of the full deposit to ensure ongoing funding and support for TK-based research on caribou.	
		Given we expect there will be impact on the Bathurst caribou herd, the Tłıchq Government recommends the Board require TK-based research program on mining impacts to the Bathurst herd will be developed and delivered with full involvement by all IBA communities.	
		Given we expect there will be impact on the Bathurst caribou herd, the Tłıchq Government recommends the Board require direct financial compensation, targeted only to community hunts and cultural activity, will be paid to IBA communities to offset the impact on Aboriginal rights to harvest incurred by activities of DDEC.	
		DDEC to provide at a minimum \$200,000 of direct financial support annually from the start of construction to mine closure, and \$100,000 of direct financial support thereafter until all adverse effects on the Bathurst caribou herd from mine development have been reversed (as determined by an expert panel of reviewers), or for 20 years post-closure, whichever timeframe is less, for the development and implementation of a Caribou Monitoring Strategy.	
Yellowknives Dene First Nation	Caribou – Cumulative Impact Predictions	1. As a measure, YKDFN proposes that DDEC provide financial support for TK-based research into the impacts of Diamond mining on caribou herd health and migratory patterns. To be considered part of mitigation there must also be a commitment from DDEC to incorporate the results of the TK-based research into mitigation efforts. To ensure this YKDFN proposes that full control of the TK-based research program lie with Communities who are party to the IBA. 2. DDEC provide direct financial compensation to IBA communities to offset the loss incurred through the inability to exercise their aboriginal rights. This inability to engage in traditional practices is the direct result of the removal of the Ekati mine area from traditional use due to mining activities.	Caribou Mitigation Plan (DAR-MVEIRB-UT2-06)
		DDEC shall be subject to measures aimed at minimizing adverse effects on caribou, not limited to: a. Selection of the Jay haul road route that minimizes disturbance to high quality caribou habitat (PR#305 DAR-IEMA-IR-28 and PR#256 Anne Gunn's proposed routing) b. Additional mitigation to reduce effects of haul truck and other traffic on caribou; such as, more aggressive dust management; more precautionary traffic management to reduce sensory disturbance. c. Devise and implement a lower impact esker crossing via alternate crossing site, one way traffic, buried power lines and other approaches.	

Parties' Closing Submission	Subject	Recommendation	Applicable DAR Review Document(s) Submitted by Dominion Diamond
		Conduct collaborative research with other mine operators to deepen understanding of the true zone of influence (ZOI) created by mining and exploratory activities. The results of this research will be reported annually to all interested parties as part of DDEC's annual report under its Wildlife Effects Monitoring Program. The research program should be developed within a year of the acceptance date of the Measures by Responsible Ministers. Implementation of research results to reduce ZOI should take place within five years, and DDEC will also commit to applying these results to the existing Ekati Mine.	Caribou Mitigation Plan (DAR-MVEIRB-UT2-06)
Yellowknives Dene First Nation	Caribou – Compensatory Mitigation	DDEC should be required to prepare a Compensatory Mitigation plan for caribou, so as to facilitate caribou herd recovery. Specifically, the plan's objectives should target quantifiable objectives, such as: reductions in energy loss, increased calving rates, increase calf survival rates. The plan should be developed with input from interested parties. The plan should be prepared by DDEC and circulated to affected Aboriginal governments, the GNWT, and the Wek'èezhìi Renewable Resources Board within one year of acceptance of the Report of Environmental Assessment.	Caribou Mitigation Plan (DAR-MVEIRB-UT2-06)
		<p>YKDFN proposes that DDEC provide financial support for TK-based research into the impacts of Diamond mining on caribou herd health and migratory patterns. To be considered part of mitigation there must also be a commitment from DDEC to incorporate the results of the TK-based research into mitigation efforts. To ensure this YKDFN proposes that full control of the TK-based research program lie with Communities who are party to the IBA. As part of this TK research program, YKDFN proposes the following:</p> <ul style="list-style-type: none"> a. DDEC provide a minimum of \$200,000/year direct financial support for the period spanning the start of mine construction to the completion of mine closure. DDEC also provide an additional \$100,000 of direct support thereafter until all adverse effects on the Bathurst caribou herd from mine development have been mitigated, as determined by an expert panel of reviews. b. The establishment of an expert panel to guide the research. This panel will comprise both traditional knowledge holders identified by IBA communities and appropriately qualified scientists. This panel will operate independently, developing a terms of reference and report directly to IBA communities. c. The panel will provide quarterly reports on such factors as caribou movement, cow/calf ratios, mortality rates, body condition, insect harassment and other indicators as determined by the panel. To meet this objective, the panel will actively seek and welcome collaboration with trans-boundary partners. d. The panel will produce an annual report to IBA communities and DDEC on herd status and health based on metrics deemed relevant. Reporting will take consideration of target audience, with emphasis on accessibility of information to community members. That is, the information should be presented in such a way as to enhance understanding to a many community members as possible. e. DDEC must demonstrate how recommendations research results produced from the panel are incorporated into its wildlife mitigation efforts. 	

Parties' Closing Submission	Subject	Recommendation	Applicable DAR Review Document(s) Submitted by Dominion Diamond
		DDEC provide direct financial compensation to IBA communities to offset the loss incurred through the inability to exercise their aboriginal rights. This inability to engage in traditional practices is the direct result of the removal of the Ekati mine area from traditional use due to mining activities.	
		That DDEC will develop a clear mechanism for the temporary (i.e., seasonal or when caribou are in proximity of mining operations) halting mine work and/or introducing mitigation and offsetting actions, should the caribou population continue to decline.	Caribou Mitigation Plan (DAR-MVEIRB-UT2-06); Caribou Road Mitigation Plan
Yellowknives Dene First Nation	Caribou – Zone of Influence	To obtain information needed to prevent significant adverse impact to caribou, DDEC shall analyze estimates to ZOI distances and magnitude from the 2009 and 2012 aerial survey data from the combined Ekati-Diavik study area using the new R code analysis. These estimates should be reported within the 2015 Wildlife Effects Monitoring Program report.	YKDFN Technical Report Response – Section 2.3; IEMA Technical Report Response – Section 2.2
Yellowknives Dene First Nation	Air Quality and Dust Management	The GNWT should develop strong, enforceable emission and air quality standards as soon as possible.	Not applicable – not directed to Dominion Diamond
		DDEC should continue to actively pursue more effective dust suppression strategies such as the application of more effective dust suppressants on road surface and appropriate triggers and responsive management strategies.	YKDFN Technical Report Response – Section 2.4; IEMA Technical Report Response – Section 2.12; Caribou Mitigation Plan (DAR-MVEIRB-UT2-06); DAR-MVEIRB-IR-74
Yellowknives Dene First Nation	Surface and Mine-Water Management	To prevent a significant adverse impact to water quality, DDEC shall develop and submit to the Wek'èezhii Land and Water board, for approval, a revised Water Management Plan for the Jay Project within two years of initiating de-watering operations of the Jay pit. The plan should include: <ul style="list-style-type: none"> a. Identification of specific surface and mine water management contingencies including capacities (in terms of effluent volumes and mine production as expressed in operating days); b. Design, construction and implementation timing for each identified surface and mine water management contingency option; c. Detailed monitoring of water quality and quantity to enable early detection of success or failure; and d. Associated adaptive management trigger thresholds for implementation of contingencies. 	YKDFN Technical Report Response – Section 2.5; IEMA Technical Report Response – Section 2.4
		That the water quality in Lac du Sauvage be returned to a quality deemed good by traditional land users and traditional knowledge holders as soon as possible following mine closure.	DAR-GNWT-IR2-04; DAR-YKDFN-IR-01; DAR-MVEIRB-IR2-09; DAR-MVEIRB-IR2-14; DAR-MVEIRB-IR2-22; Conceptual AEMP Design Plan for the Jay Project

Parties' Closing Submission	Subject	Recommendation	Applicable DAR Review Document(s) Submitted by Dominion Diamond
Yellowknives Dene First Nation	Socio-Economics – Community Wellness	Inclusion in annual meetings with DDEC and the GNWT regarding meeting obligations established in the SEA.	YKDFN Technical Report Response - Section 2.6; LKDFN Technical Report Response – Section 2.6
		Written reports on progress against benchmarks and obligations laid out in the SEA.	
		DDEC will track feedback received from exit interviews completed by exiting female employees to identify barriers to successful retention. If such barriers are identified, Dominion Diamond is committed to investigating what can be done to address the issue. Mechanisms to address barriers will be developed as part of DDEC's commitment to ongoing improvement, and will be specific to the issue in question. DDEC will support and seek input from the Status of Women Council of NWT in the design of the "mechanisms to address barriers" and the design of the exit interviews.	Public Hearing Day 1 Transcript, page 97 – 100; DAR-MVEIRB-UT2-01; DAR-NSMA-IR2-01; DAR-NSMA-IR-27; DAR-NSMA-IR-29; Adequacy Review Items 11.1 to 11.5 responses
		Where employment barriers for women are seen as related specifically to social issues, Dominion Diamond is committed to raising these issues with the Government of the Northwest Territories to determine how the two parties can work together to improve or remove the barrier that is being experienced. Dominion Diamond and GNWT will invite the Status of Women Council of NWT to the discussion, and provide support as necessary so the Council can provide meaningful input towards the removal of the barrier that is being experienced by women.	
		In addition, Dominion Diamond evaluates its programs aimed at improving the training and recruitment of women in the North, and will continue to adapt programs in response to feedback from female employees, and community members, interested in a career in mining. DDEC will also re-engage and consult with Status of Women Council of NWT to identify and address relevant concerns related to women.	

Note: Dominion Diamond has provided these references with the intent of assisting the MVEIRB in its final deliberations. Dominion Diamond has attempted to provide a complete list of the most relevant Dominion Diamond responses contained within the record of evidence for this proceeding; however the specific list of references provided herein should not be considered exhaustive.

DDEC = Dominion Diamond Ekati Corporation; DDMI = Diavik Diamond Mines Inc.; DFO = Fisheries and Oceans Canada; EC = Environment Canada; GNWT = Government of Northwest Territories; ENR = Environment and Natural Resources [for the GNWT]; MVEIRB = Mackenzie Valley Environmental Impact Review Board; TC = Transport Canada; DKFN = Deninu K'ue First Nation; IEMA = Independent Environmental Monitoring Agency; KIA = Kitikmeot Inuit Association; LKDFN = Lutsel K'e Dene First Nation; NSMA = North Slave Métis Alliance; YKDFN = Yellowknives Dene First Nation; NWT = Northwest Territories; AEMP = Aquatic Effects Monitoring Program; AQEMMP = Air Quality and Emissions Monitoring and Management Plan; WEMP = Wildlife Effects Monitoring Program; IR = information request; IBA = Impact Benefit Agreement; TK = Traditional Knowledge; SEA = Socio-Economic Agreement; REA = Report of Environmental Assessment; GHG = greenhouse gas; WRSA = Waste Rock Storage Area; MMR = Mining Effluent Regulations; DAR = Developer's Assessment Report; EA = environmental assessment; TDS = total dissolved solids; TSP = total suspended particulate; VC = valued component; ZOI = zone of influence; > = greater than; < = less than; ≤ = less than or equal to; % = percent; cm = centimetre; mg/L = milligrams per litre; mm/s = millimetre per second; km = kilometre; hr = hour; LC₅₀ = lethal concentration to 50% or organisms; kPa = kiloPascals; NO₂ = nitrogen dioxide; PM_{2.5} = particulate matter with a mean aerodynamic diameter of 2.5 microns (µm) or smaller.