

IEMA Jay Project Second Round Information Requests—June 5, 2015

<p><u>GENERAL INSTRUCTIONS FOR EXCEL TEMPLATE:</u></p> <ol style="list-style-type: none"> 1. Do not leave blank rows above or between comments. 2. Do not modify or delete the instructions or the column headings (i.e. the grey areas). 3. Each comment must have an associated topic and recommendation. 4. All formatting (i.e. bullets) will be lost when this file is uploaded to the Online Comment Table. 5. If necessary, adjust the cell width and height in order to view all text. 6. Cutting and pasting comments from WORD documents cannot include hard returns (spaces between paragraphs). 7. If you would like to create paragraphs within a single cell, please use a proper carriage return (ALT & ENTER). 		
<u>TOPIC</u>	<u>COMMENT</u>	<u>RECOMMENDATION</u>
<i>Be as specific as you think is appropriate; for example a section or page of the document, a recommendation #, general comment, etc.</i>	<i>Comments should contain all the information needed for the proponent and the Board to understand the rationale for the accompanying recommendation.</i>	<i>Recommendations can be for the proponent or for the Board. Recommendations should be as specific as possible, relating the issues raised in the "comment" column to an action that you believe is necessary.</i>

Item Number	Topic	Comment	Recommendation
1	Fish Impact Predictions (DDEC Response to MVEIRB-IR #67)	DDEC states " <i>The amount of cumulative change to spawning shoal habitat for the Application Case is expected to result in <u>no measurable effect to population abundance and distribution for fish.</u></i> " It is not clear what the extent of change will be from reference conditions in terms of abundance or distribution for all VEC fish species.	DDEC should clarify, for each VEC fish species, whether or not there will be measurable changes to fish abundance and distribution as a result of cumulative impacts on spawning habitat.

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2	Air Quality Assessment Update (Golder, January 19, 2015, Table 4.3)	DDEC now predicts annual exceedances of NWT Ambient Air Quality Guidelines would cover an area of 309 ha from the original estimate of 169 ha. DDEC also states <i>“Results from the air quality assessment [are] passed on to vegetation and water quality teams for their assessments, which are then considered in barren-ground caribou, wildlife, fish and fish habitat assessment”</i> (DAR-MVEIRB-UT-24, Table 24.1). It is not clear whether DDEC has reassessed its predicted impacts on water quality, aquatic biota and wildlife following these changes in its predicted dust deposition and air quality exceedances.	DDEC should verify the accuracy of its impact predictions and significance determinations on water quality, aquatic biota, vegetation and wildlife as a result of the increased area of dust deposition exceedances.
3	Reclamation of Ore Transfer Pad and Diked Area (Technical Session – Fish and Fish Habitat Presentation, pg. 14 map)	It appears the Ore Transfer Pad is part of the above-water features near the pit that will be inundated with water at closure. It is not clear how DDEC would avoid possible kimberlite contamination of the pit lake water.	DDEC should explain how the Ore Transfer Pad will be reclaimed so as avoid kimberlite contamination of Jay pit water quality at closure.

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4	Compensatory Mitigation (Draft Conceptual Wildlife Effects Monitoring Plan - Jay Project; June 2015, s. 4, pg. 4-1)	The third level of “standard mitigation hierarchy” addresses reclaiming, such as measures taken to rehabilitate degraded ecosystems or restore ecological function. The document does not consider compensatory mitigation (off-setting), which are measures implemented when despite avoidance and minimization, there are still net effects to caribou or their habitat. Given acknowledged net effects of development to caribou and their habitat and the perilous state of the herd, the company should explore all options to mitigate potential impacts. These might involve working collaboratively with those responsible for existing project that affect caribou to propose habitat trade-offs (to remove areas from potential development) or herd management to reduce other stresses on the herd. This should include consideration of further caribou mitigation, off-setting and compensatory mitigation as part of the existing and future Ekati operations.	Dominion should add the option of compensatory mitigation to the types of mitigation available.
5	Caribou Monitoring (Draft Conceptual Wildlife Effects Monitoring Plan - Jay Project; June 2015, s. 5.4, pgs. 5-8 to 5-16)	Caribou monitoring methods are limited to incidental observations, behaviour/response to stressors, LLCF monitoring, and camera trapping (section 5.4, pgs 5-8 – 5-16). There is no discussion in this document about monitoring to trigger intensified mitigation along the road. Collars would play a larger role at greater distances, and road surveys or height of land surveys or some other innovative monitoring method could be employed at medium to closer distances. Although these will likely be provided in the revised caribou (wildlife) road mitigation plan, they should be outlined in the main document.	Dominion should provide details on monitoring that will be conducted to trigger mitigation for reducing sensory disturbance and the semi-permeable barrier effects of the roads.

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6	Mitigation of Effects on Caribou, (Boulanger et al. 2012 and Caribou Zone of Influence Technical Task Group 2015)	<p>The Boulanger et al. (2012) report determined a 14-km zone of influence (ZOI) for caribou surrounding the Ekati and Diavik mines from 2003–08 (the referenced document is provided to the Review Board for the public registry). More recent analyses have enabled more efficient determination of ZOI on an annual basis that can be used to examine trends in ZOI distance and magnitude over time (Appendix C in The Caribou Zone of Influence Technical Task Group. 2015. Draft guidance for monitoring the zone of influence (ZOI) of anthropogenic disturbance on barren-ground caribou, 10 Mar 2015 and provided to the Review Board with this IR for the public registry). Annual variation in ZOI could be related to patterns of mining activity (blasting, ore hauling, etc.). Dominion has shown that aerial survey data from 2009 and 2012 are available (response to DAR-IEMA-IR-24). These two years are important in that they occurred during the lowest levels of herd size and when activity at Misery increased. Examination of the relationship between ZOI distance and magnitude with patterns of mine activity would provide direction to more effective mitigation of project effects. This analysis should indicate further opportunities for mitigation of effects on caribou that can be applied to the proposed Jay Project and existing operations.</p>	<p>Dominion should analyze the 2009 and 2012 aerial survey data from within the combined Ekati-Diavik study area using the new R code analysis to produce estimates of ZOI distance and magnitude. It would be even more helpful if DDEC would provide measures of mine activity on an annual basis that could be correlated with changes in ZOI. Those measures could include annual levels of blasting (amount of ammonium nitrate), amount of cumulative traffic, numbers of flights and a GANTT diagram showing underground and open pit timing. The lessons learned from this analysis should then be applied to adaptive management and mitigation of effects in relation to caribou from the Jay Project and existing operations.</p>