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Northern Region
Permit To Take Water Coordinator
Ministry of the Environment
Operations Division
Northern Regional Office
435 James Street South, Floor 3, Suite 331
Thunder Bay, ON
P7E 6S7

Dear Sirs:

**Re: De Beers Canada Inc. - Victor Mine
Permit to Take Water - Amendment Application for Mine Dewatering
EBR Registry Number: 011-9596
Ministry Reference Number: 1334-9BVLEH**

Ontario Rivers Alliance (ORA) is a Not-for-Profit grassroots organization acting as a voice for the French River Delta Association, CPAWS-OV, Council of Canadians, Kiishik Community Association, Food & Water First, Whitewater Ontario, Vermilion River Stewardship, Mississippi Riverwatchers, French River Stewardship, as well as many other stewardships, associations, and private and First Nations citizens who have come together to protect, conserve and restore healthy river ecosystems all across Ontario.

ORA is writing in response to a proposal to combine two existing Permits To Take Water (Victor Open Pit Well Field PTTW No. 5521-8CZSNK and Pit Perimeter Well Field PTTW No. 2824-8D2HVW) issued by the Ministry of the Environment to De Beers Canada Inc. for the Victor Diamond Mine and to modify some of the existing conditions.

ORA is in full support of the submission made by Mr. Charles Hookimaw, an Attawapiskat First Nation member. The proponent's duty to consult impacted stakeholders and First Nation communities is paramount to an open, transparent and accountable approvals process, and is constitutionally mandated. Many impacted stakeholders live in remote communities that have no access to internet, and it is inexcusable that the proponent has made no effort to meet with the Attawapiskat First Nation community, especially when this operation could have long lasting impacts on water quality, water quantity, and heavy metal contamination of local fisheries.

The Mercury 2012 Annual Report indicates there were "*no adverse effects of mine dewatering on area mercury levels in peatlands, surface waters, or fish flesh for the 2012 monitoring period*"¹, and yet Charles Hookimaw reports adverse environmental effects on water quality and

¹ 27 June 2013 letter from AMEC – Mercury 2012 Annual Report, P-2

water quantity, with sinkholes appearing, ponds and muskeg drying up, and an increase in mercury, arsenic and chloride levels.

This Report also indicates that "*Elevated methyl mercury concentrations in the NEF are likely attributed to sulphate-rich effluent waters which stimulate the mercury methylation process, and are not a function of well field dewatering effects.*"² ORA suggests that this Report has no basis for forming this conclusion, and is at best a guess. We would like to draw your attention to a recently published study which reports on the impacts of drying of peat in wetlands. "*Climate change is predicted to cause an increase in frequency and severity of droughts in the boreal ecozone, which can result in the lowering of water tables and subsequent release of acidic, metal contaminated waters from wetlands. We believe that in areas where historical deposition of metals and sulphur was severe, these episodic pulses of metals could reach concentrations sufficiently high to severely affect aquatic communities in receiving waters and cause a delay in biological recovery.... Following a period of drought, there was a decline in pH and a large increase in concentrations of sulphate and metal ions (Al, Co, Cu, Fe, Mn, Ni, and Zn) in water draining both peatlands, with extreme concentrations occurring over a period of about two weeks. At the site with the higher peat organic matter content there was an increase in metals that have a high affinity to bind to DOC (Al, Cu, and Fe) during the onset of drought. This study demonstrates a dramatic response to drought at two sites that differ in metal and nutrient pool sizes, hydrology, and topography, suggesting the potential for a majority of peatlands in the region to experience this response.*"³ This sulphate-release has been documented in wetland soils³ and riparian sediments⁴ in the Sudbury area and elsewhere, and can result in metal release with even small changes in soil moisture.^{3,5} It is our submission that heavy metal increase is not only due to the sulphates contained in the effluent, but also from the water taking itself, where the wetting and drying process results in heavy metal release from the peat, soils and sediments.

Mercury, arsenic and chloride levels must be included for 2012 and 2013 on Nayshkootayaow River and Granny Creeks, as well as for the Attawapiskat River. This information is necessary to determine current heavy metal and chloride contamination levels on impacted rivers. This is crucial information for the Ministry to properly assess whether water taking should be continued for another 6 years. It is unacceptable that there are impacts from the current PTTW that have not been fully reported or addressed, let alone contained in the application for consideration in whether to extend and combine the permits.

Modifications to sections 3.5.1 and 3.5.2 should be refused until such time as the current impacts have been properly mitigated.

The cumulative effects from the current PTTW and other past, present and future activities in the watershed must be fully assessed before any consideration is given to this PTTW application.

A 45 day comment period is an insufficient amount of time for remote communities to respond to this very long and technical document, especially when there have been no information meetings scheduled for Attawapiskat or the surrounding area. All stakeholders must be

² Mercury 2012 Annual Report June 27 2013, Surface Waters, P-37

³ Szkokan-Emilson, E.J., Kielstra, B., Watmough, S., Gunn, J.M. (2013) Drought-induced release of metals from peatlands in watersheds recovering from historical metal and sulphur deposition. *Biogeochemistry* DOI: 10.1007/s10533-013-9919-0

⁴ Yan et al. (1996) Increased UV-B penetration in a lake owing to drough-induced acidification. *Letters to Nature* 318: 141-143

⁵ Juckers, M., and Watmough, S.A. (2013) Impacts of simulated drought on pre water chemistry of peatlands. *Environmental Pollution* 184: 73-80

consulted on such a major application that could have lasting impacts on their community and would not expire for another 6 years.

ORA requests that an extension of the comment period be provided, and that the applicant be required to conduct face-to-face consultation with Attawapiskat First Nation and Charles Hookimaw. DeBeers must be required to report to the Director on all efforts made to resolve their concerns.

ORA submits that the purpose of the Ontario Water Resources Act "*is to provide for the conservation, protection and management of Ontario's waters and for their efficient and sustainable use, in order to promote Ontario's long-term environmental, social and economic well-being. 2007, c. 12, s.1(1).*" It is our position that the environmental impacts of all past and present water taking have resulted in significant environmental impacts that have not been addressed.

ORA requests that section 34.1(2) of the Ontario Water Resources Act be used to revoke the current PTTW, and reject any amendments until such time as the current impacts have been properly assessed and mitigated.

Thank you for this opportunity to comment.

Respectfully,



Linda Heron
Chair, Ontario Rivers Alliance

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