



November 20, 2014

File: L020

Willard Hagan, Chair  
Mackenzie Valley Land and Water Board  
PO Box 2130  
Yellowknife, Northwest Territories  
X1A 2P6

Dear: Mr. Hagan:

**Re: MV2011L2-0004 – Request to Change Effective Dates for Effluent Limits Part F; Condition 9a**

De Beers Canada Inc. (De Beers) is requesting that the Mackenzie Valley Land and Water Board (MVLWB) approve a modification of its current water licence related to the effective date of certain effluent limits. Specifically, De Beers is requesting that the effective date of January 1, 2015 for certain effluent limits specified in Part F, Condition 9a) of water licence MV2011L2-0004 be modified pursuant to section 11 of Part B of the licence.

In December 2013, De Beers submitted an application to amend its current water licence to reflect the outcomes of scientific studies related to the establishment of site-specific water quality objectives for certain effluent parameters, including total dissolved solids (TDS), nitrogen, chloride, fluoride, sulphate and strontium. Certain aspects of that application recently underwent an environmental assessment by the Mackenzie Valley Environmental Impact Review Board (MVEIRB; EA1314-02), resulting in a Decision by the Minister of Lands. De Beers has, since 2012, shown that concentrations of TDS constituent ions in effluent, have, and will continue to increase over life of mine. Notably, De Beers predicted that current chloride effluent limits would be exceeded by the end of 2014, and in fact De Beers has had two such occurrences in 2014. In addition to the original application to amend its licence, De Beers has recently filed a second application to specifically amend two conditions of the licence which will almost certainly result in non-compliance if not amended in the short term. These relate to the whole-lake TDS limit of 350 mg/L specified in Part F, condition 13, and the chloride limit of 310 mg/L specified in Part F, condition 9a.

The MVLWB has recently issued a letter to De Beers confirming that it will not be able to consider the amendment of these two specific conditions prior to January 1, 2015, at which time even lower effluent limits come into effect for chloride, fluoride and nitrate – which De Beers has previously stated are not, nor ever will be, achievable.

De Beers will continue to fully participate in both applications currently before the MVLWB: one to apply interim effluent quality criteria for TDS inclusive of chloride; and, the second, to amend licence

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parameters for life of mine, based on the establishment of site-specific water quality objectives and consideration of mitigation. This request to extend compliance limits for certain licence parameters, is being undertaken pursuant to your advice in your letter of November 19, as well as a means of reducing (but not eliminating ) the potential for non-compliance as of January 1, 2015.

Table 1-1 summarizes the requested extension to compliance dates.

**Table 1-1: MV2011L2-0004 Condition 9 a) Effluent Quality Requirements**

	Parameter	Average Monthly Limit (mg/L)	Max Grab (mg/L)
	Total Suspended Solids	7	14
	Ammonia as N	10	20
	Nitrite as N	0.5	1
<i>Extend</i>	Nitrate as N (up to December 31, 2014)	22	44
<i>Remove</i>	Nitrate as N (from January 1, 2015)	4	8
<i>Extend</i>	Chloride (up to December 31, 2014)	310	620
<i>Remove</i>	Chloride (from January 1, 2015)	160	320
<i>Remove</i>	Fluoride (from January 1, 2015)	0.15	0.3
	Sulphate	75	150
	Metals	Trace	trace

De Beers requests that where an extension is being requested, that the extension be until the current expiry date of the water licence, namely June 13, 2020. We acknowledge that this in no way fetters the MVLWB's jurisdiction to impose any limits and timelines it determines are appropriate in the licence amendment currently before the MVLWB.

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De Beers appreciates your consideration of this administrative modification of the licence. Should you have any questions or concerns, please feel free to contact me by phone at (867) 766-7331 or by email at [erica.bonhomme@debeersgroup.com](mailto:erica.bonhomme@debeersgroup.com)

Sincerely,

**DE BEERS CANADA INC.**



Erica Bonhomme

Environment Manager, Snap Lake Mine

cc M.Sanderson, J. Steele, R. Walbourne, P. Green  
M. Casas, A. Plautz, L. Cymbalisty

GNWT  
MVLWB