

DE BEERS

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March 5, 2015

File: L020

Philippe di Pizzo
Snap Lake Environmental Monitoring Agency
Main Floor, Lahm Ridge Tower
P.O. Box 95
4501 Franklin Avenue
Yellowknife, NT X1A 2N1

Dear: Mr. Di Pizzo,

**Re: Snap Lake Mine De Beers Canada Inc.
SLEMA Modelling Update
Water Licence #MV2011L2-0004**

De Beers Canada Inc. (De Beers) is in receipt of the Snap Lake Environmental Monitoring Agency (SLEMA) letter of March 2, 2015 requesting De Beers' to provide an update on status of sampling at SNP 02-18. De Beers notes that the original request to report on TDS at SNP02-18 was provided to De Beers on November 27, 2014, and De Beers responded to the request on December 15, 2014.

As noted in the December 15th response, mid-winter sampling is not a requirement of the license. De Beers indicated that it would attempt a program in January 2015 in order to provide the requested data, but that a program would only be undertaken in whole or in part, if ice, daylight and weather conditions are deemed safe for Snap Lake Mine workers, in accordance with De Beers' health and safety policies, the *NWT Mines Health and Safety Act*, and the Workers' Safety and Compensation Commission Code of Practice for Thermal Conditions. This constraint has previously been identified. Recognizing continued issues with inclement weather preventing sampling under ice during the winter months, the current license requires three whole lake sampling events, two during open water and one under ice immediately prior to ice out when TDS is predicted to be highest.

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De Beers attempted to conduct the SNP 02-18 sampling programs January 6, 7, 8, and 17 2015. Wind chill and temperatures on all days was below -40°C (please see attached field notes for recorded weather temperatures) resulting in the cancellation of the program. Weather permitted samples to be collected at the 02-20 stations at the end of January (January 18 for SNP 02-18 d,e,f) and the last sample, SNP 02-20g was collected on January 26, 2015. De Beers made a subsequent attempt to sample SNP 02-18 during the scheduled monthly AEMP program in February, but was again unable to do so due to temperature. WSCC guidelines for exposure and our Safety, Health and Environment Procedures apply for the duration and scale of exposure of the work.

The next planned SNP 02-18 Whole Lake average sampling will be conducted in May 2015 as required by Water License MV2011L2-0004.

De Beers also notes that the intent of the AEMP response framework is to notify of a change before it occurs. In Table 6.3-1 of the approved AEMP approved design plan states that while aesthetic objectives are considered in the Response Framework, the significance thresholds are based on human and wildlife health.

Table 6.3.1 Snap Lake AEMP Significance Thresholds

Value	Component	Plain Language – Threshold (due directly or indirectly to the Mine)	Comments
<i>Water Must be Drinkable</i>	Drinking Water	Water in Snap Lake not drinkable	Aesthetics will be considered through the action levels, but the significance threshold is based on a human health and/or wildlife risk assessment for any measured parameter in Snap Lake.

Under Section 6.5, Suggested Responses of the AEMP Redesign Plan, one possible response action is to revise the low action level if it is warranted and scientifically defensible. In the case of the exceedance of the Low Action Level for the Drinking Water Aesthetic Objective, the scientific basis for a Water Quality Objective above 500 mg/L has been provided to stakeholders through the Water License amendment process. As such De Beers is of the opinion that no further action is required to investigate cause until the amended Water License has been received.

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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.

Sincerely,
DE BEERS CANADA INC.



Erica Bonhomme
Environmental Manager
Snap Lake Mine

cc T. Bradbury, E.Bonhomme, M. Peters
M. Sanderson, J. Steele, R. Walbourne, P. Green
M. Casas, J. Potten, A. Plautz, L. Cymbalisty, Z. Nevitt
M. D'Aguiar
S. Lacey-MacMillan
P. di Pizzo, Z. Liu
T. Slack
S. Shiga
S. Van der Wielen
P. Unger
C. Heron
R. Bjornson

DBCI
GNWT
MVLWB
DFO
EC
SLEMA
YKDFN
NSMA
Tlicho
LKDFN
NWTMN
DKFN

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SHE DAILY REPORT

DATE: 6 January 2015		PAGE: 1	
		OF 2	
SHE Superintendent: Michelle Peters		DAILY REPORT NO.: 6 January 2015 CONTRACT TITLE: Snap Lake January 2015 AEMP PROJECT: <u>Snap Lake Mine</u> PROJECT NO.: 14-1328-0010-5000-5065 (GOLDER)	
SHIFT: From: 6:30 to 22h30 WEATHER: -43 with wind			
DESCRIPTION OF WORK PERFORMED TODAY			
<ul style="list-style-type: none"> • Daily H&S meeting in the environment lab and SLAM card • Meeting with De Beers about diffuser delineation and weather forecast • Unable to sample diffuser stations due to extreme weather conditions • Erica has decided that we will abandon this attempt at sampling the diffuser stations and whole lake TDS sites. • Return home to Yellowknife 			
CONTRACTOR Golder Associates Ltd.		TITLE Environmental Consultants	
COMMENTS:			
Extremely cold weather and with the diffuser not being delineated, it was decided that we should return home and try again in a week.			
AREA			
SUPERINTENDENT: _____		_____	
<i>Signature</i>		<i>Title</i>	
OWNER'S		_____	
REPRESENTATIVE: _____		_____	
<i>Signature</i>		<i>Title</i>	
_____		_____	
<i>Date</i>		<i>Date</i>	

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SHE DAILY REPORT

DATE: 17 January 2015		PAGE: 1 OF 1	
SHE Superintendent: Michelle Peters		DAILY REPORT NO.: CONTRACT TITLE: PROJECT: PROJECT NO.:	17 January 2015 Snap Lake January 2015 AEMP Snap Lake Mine 14-1328-0010-5000-5065 (GOLDER)
SHIFT: From: 6:30 to 14h30 WEATHER: -30 to -25°C, 15 knots			
DESCRIPTION OF WORK PERFORMED TODAY <ul style="list-style-type: none">Daily H&S meeting in the environment lab and SLAM cardCrew were weathered-in			
CONTRACTOR Golder Associates Ltd.		TITLE Environmental Consultants	
COMMENTS: Crew was not able to go outside today due to unfavourable weather conditions. At 9:00, air temperature was -30°C with 15 knots winds. At 13h00, air temperature was -25°C with 15 knots winds. In both cases, the equivalent chill temperature was below -40°C. 			
AREA SUPERINTENDENT: _____ Title _____ Date _____ OWNER'S REPRESENTATIVE: _____ Signature _____ Title _____ Date _____			

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SHE DAILY REPORT

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