

## Review Comment Table

<b>Board:</b>	WLWB
<b>Review Item:</b>	Diavik - Mineral Exploration - Drilling Additives Request (W2017C0002) (WLWB)
<b>File(s):</b>	<a href="#">W2017C0002</a>
<b>Proponent:</b>	Diavik Diamond Mines (2012) Inc.
<b>Document(s):</b>	<a href="#">W2017C0002 - Diavik " Additional Drilling Additives Request " Mar 9 21</a> (5611 KB)
<b>Item For Review Distributed On:</b>	Mar 9 at 11:04 <a href="#">Distribution List</a>
<b>Reviewer Comments Due By:</b>	Mar 30, 2021
<b>Proponent Responses Due By:</b>	Apr 6, 2021
<b>Item Description:</b>	<p>Diavik Diamond Mines (2012) Inc. (DDMI) has submitted a request to use drilling additives not currently authorized for use under DDMI's Mineral Exploration Land Use Permit (W2017C0002) (the Permit). As per Condition 32 of the Permit, "The Permittee shall not use any Drilling Fluids, muds, or additives that were not identified in the complete application, unless the MSDSs are provided to the Board and Inspector and usage of the chemical(s) is authorized in writing by the Board". DDMI is proposing to use drilling additives during the winter <a href="#">2021 Drill Program</a> that were not identified in the complete application and therefore, requires Board approval for their use.</p> <p><b>Using the Online Review System (ORS), reviewers are invited to submit comments and recommendations on the documents linked below by the review comment deadline specified. Reviewers may also wish to consider providing an overarching recommendation regarding whether the Board should approve the submission, to provide context for the comments and recommendations and assist the Board with its decision. If reviewers seek clarification on the submission, they are encouraged to correspond directly with the Applicant prior to submitting comments and recommendations.</b></p> <p>All documents that have been uploaded to this review are also available on our public Registry. If you have any questions or comments about the ORS or this review, please contact Board staff identified below.</p>
<b>Contact Information:</b>	Anneli Jokela 867-765-4588 Kassandra DeFrancis 867-765-4581

## Comment Summary

Diavik Diamond Mines (2012) Inc. (Proponent)			
ID	Topic	Reviewer Comment/Recommendation	Proponent Response
1	General File	<b>Comment</b> <a href="#">(doc)</a> Cover Letter <b>Recommendation</b>	
Fisheries and Oceans Canada: Nicholas Wasilik			
ID	Topic	Reviewer Comment/Recommendation	Proponent Response
1	Diavik - Mineral Exploration - Drilling Additives Request (W2017C0002)	<b>Comment</b> Fisheries and Oceans Canada has reviewed the request and has no comments at this time. <b>Recommendation</b> Fisheries and Oceans Canada has no recommendations.	<b>Apr 3:</b> RTX thanks DFO for reviewing our request.
GNWT - ENR - EAM (Environmental Assessment and Monitoring): Central Email GNWT			
ID	Topic	Reviewer Comment/Recommendation	Proponent Response
1	General File	<b>Comment</b> <a href="#">(doc)</a> ENR Letter - No Comments or Recommendations at this time. <b>Recommendation</b>	
WLWB: Kassandra DeFrancis			
ID	Topic	Reviewer Comment/Recommendation	Proponent Response
1	Drilling Additives	<b>Comment</b> In the submission, DDMI has requested four additional drilling additives be approved for use. While DDMI provided the MSDS sheets for the additives that contain information on ecological toxicity, DDMI did not comment on the potential for environmental impacts from the use of these additives. <b>Recommendation</b> (1) Please comment on potential environmental impacts, if any, from using the requested additives. (2) If any potential impacts are identified, can DDMI explain what mitigations are available to address them.	<b>Apr 3:</b> DDExpress, SANDExpress, and Torqueless are all not known to be toxic as per the SDS information. There is no ecological data provided to indicate ecotoxicity. The DiCorp Calcium Chloride indicates ecotoxicity levels for bluegill and water fleas but otherwise is stated to not have adverse affects to the environment. RTX will recycle all circulated waters, cuttings are separated via a SRU (centrifuge), and recirculated waters collected in totes at hole completion. Recycled water and cuttings will either be pumped to a LUP compliant land based sump or flown back to Diavik for disposal at approved waste management facilities.
2	Calcium Chloride	<b>Comment</b> DDMI was approved to use NEDMAG Calcium Chloride Prills 94-97% as of the Board's July 28, 2020 decision. In DDMI's current request, it has included Di Corp	<b>Apr 3:</b> These are the same additives with a different manufacturer.

		<p>Calcium Chloride. It is unclear if these are the same additives but under different manufacturers.</p> <p><b>Recommendation</b> Please comment on the differences, if any, between the NEDMAG and Di Corp additives.</p>	
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## Distribution List

### Diavik - Mineral Exploration - Drilling Additives Request (W2017C0002) (WLWB)

#### File(s):

**Proponent:** Diavik Diamond Mines (2012) Inc.

**Reviewer Comments Due By:** Mar 30, 2021

**Proponent Comments Due By:** Apr 6, 2021

#### Document(s)

W2017C0002 - Diavik – Additional Drilling Additives Request – Mar 9\_21

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April 3, 2021

Wek'eezhii Land and Water Board  
#1 – 4905 48<sup>th</sup> Street  
Yellowknife, NT, X1A 3S3

Dear Ms. De Francis and Ms. Jokela

**Re: RTX Response to Public Review Comment 2021**

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Rio Tinto Exploration Canada Inc. ('RTX') appreciates the Wek'eezhii Land and Water Board's and parties' comments regarding our request to use additional drilling additives for our winter 2021 exploration program.

During the drilling process, water will be recycled and recirculated and the drill rig utilizes a centrifuge to separate out cuttings. Upon completion of the hole, the disposal of that recycled water and cuttings will be to either a nearby land-based sump or collected and brought back to the mine site for disposal at one of Diavik's designated waste management facilities. When using a land-based sump, the location will be selected as per the relevant conditions in Land Use Permit and will be monitored through out the program to ensure continued containment and regulatory compliance.

The program expects to complete 10-15 holes and will ensure that each drill site will be reclaimed such that the entire working area will be left with very little evidence of our presence. Garbage generated at the site will be removed daily and upon completion. No equipment will be left on site once the drilling has been completed. As expected, a hole in the ground from where the drill was set up may still be visible after the thaw but little else should suggest that work had been done. The RTX project team is in close and continuous contact with Diavik Diamond Mine Inc.'s ('DDMI') Site Services and Environment divisions to ensure any drill waste other than that already mentioned is separated, secured, and disposed of at the proper onsite facility.

Carrying forward from last year, RTX maintains the same Spill Contingency Plan. Those principles remain as the following:

- 1) Spills are to be prevented where possible, and their impact minimized through diligent planning, risk assessment and preparation.
- 2) Any spills or releases of fluids from the drill rig or other equipment that are not contained at the source will be cleaned up and disposed of in accordance with DDMI Waste Management Plan. Spill kits are available at all drill sites where materials are in use.

- 3) All spills and releases on the land are reported by the contractor to the RTX Project Manager and to the DDMI Environment team. A response organization is in place where the names and contact numbers of key personnel for RTX and DDMI are listed.
- 4) Spills requiring external reporting (based on product/volume/location) will be reported to the 24-hour NWT Spill Line by DDMI Environment.
- 5) Spills will be recorded as an HSE incident in RTX's internal reporting system and will follow RTX incident management process, including a full investigation and root cause analysis where the severity warrants that level of detail.

Based on the measures stated above and that are already in place to manage spills and to contain/manage drilling waste, including drilling additives, the potential for adverse impacts to the external environment is considered low.

I trust the foregoing in combination with our responses submitted for the individual comments are satisfactory. If you should have any questions on this matter, please do not hesitate to be in touch.

Sincerely,



Eileen Lyon  
Principal I Geoscientist  
Project Manager for Diavik Brownfields



March 30, 2021

Joseph Mackenzie  
Chair  
Wek'èezhì Land and Water Board  
#1-4905 48<sup>th</sup> Street  
Yellowknife, NT  
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Dear Mr. Mackenzie,

**Re: Diavik Diamond Mines Inc.  
Land Use Permit - W2017C0002  
Diavik - Mineral Exploration - Drilling Additives Request  
Request for Comment**

The Department of Environment and Natural Resources, Government of the Northwest Territories has reviewed the reviewed the request at reference based on its mandated responsibilities and has no comments or recommendations for the consideration of the Board at this time.

Should you have any questions or concerns, please do not hesitate to contact Patrick Clancy, Environmental Regulatory Analyst at (867) 767-9233 Ext: 53096 or email [patrick\\_clancy@gov.nt.ca](mailto:patrick_clancy@gov.nt.ca).

Sincerely,

Patrick Clancy  
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Environmental Stewardship and Climate Change Division  
Department of Environment and Natural Resources  
Government of the Northwest Territories