

DE BEERS GROUP

August 07, 2024

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Land & Water Division - Department of Environment and Climate Change
Government of the Northwest Territories
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Subject: Follow-Up Spill Report – Black Water – Gahcho Kué Mine – July 08, 2024 (GNWT Spill #2024259)

Pursuant to Part H Condition 3(d) of Water License MV2005L2-0015, De Beers Canada Inc. (De Beers) is submitting this follow-up spill report for GNWT Spill #2024259, which occurred at the Gahcho Kué Mine at 07:45 on July 08, 2024.

An NT-NU Spill Report was completed and submitted via email to the NWT Spills Hotline (spills@gov.nt.ca) at 08:17 on July 09, 2024.

Incident Summary:

At approximately 7:45 a.m. on July 8, 2024, the waste water treatment plant (WWTP) operator discovered a spill at the WWTP facility. The location of the spill is shown in **Figure 1**. The investigation determined that the high-level float failed to activate when the equalizer tanks reached capacity. This resulted in an overflow of approximately 100 liters of black water onto the ground outside the plant. After the plant operator observed and contained the spill, Environment staff were alerted, and a spill report was filed the same day. Given that the spill occurred in a small, lined area, it is deemed to have posed an insignificant environmental risk. The spill is depicted in **Figure 2**.

Immediate Actions:

Upon discovering the spill, the team promptly contained the contaminated material and transported it to the Waste Management Area for proper disposal offsite at an accredited facility. In addition to managing the spill, the team reset the high-level floats and pumps, which have since been operating effectively and without issue since this event.

Following the cleanup, a comprehensive remediation effort was conducted. The affected area was subjected to a thorough inspection to ensure that all contaminants were fully removed. The area was confirmed to be completely free of any residual pollutants, as illustrated in **Figure 3**.

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Root Cause:

Upon further investigation, it was determined that the root cause of the spill was primarily caused by workplace factors. Specifically, during the cleaning of the camp's water intake and the flushing of pipes around the camp—necessitated by high chlorine levels in the treated water—an unusually large volume of water was introduced into the Sewage Treatment Plant. This influx of water exceeded the plant's designed processing capacity, leading to an overflow.

Follow-Up Actions:

In response to the incident, De Beers has undertaken the following comprehensive corrective actions to mitigate the risk of recurrence and enhance the operational integrity of the Sewage Treatment Plant:

1. **Review of Design Parameters and Capacity:** De Beers has conducted an in-depth review of the Sewage Treatment Plant's design parameters and capacity. This review, carried out in close collaboration with plant operators, aimed to assess and confirm that the plant operates within its designed limits. By evaluating the current operational parameters and identifying any potential gaps, De Beers has ensured that the plant's capacity aligns with its intended use, and should not experience failures such as this within normal operations.
2. **Installation of Enhanced Signage:** To address potential confusion during overflow situations, De Beers has installed clear and informative new signage within the Sewage Treatment Plant. This signage explicitly indicates that the valve will not automatically shut off the tank in the event of an overflow. The signage is intended to provide operational guidance to staff and prevent similar incidents by ensuring that all personnel are aware of the system's limitations and response procedures. In the event of upset conditions regarding additional flow into the WWTP, operators are now informed that they will need to actively manage the tank volumes in order to mitigate any potential future spills.

These measures are designed to bolster the plant's resilience and operational safety, ensuring a more reliable and effective management of wastewater in the future.

Should you have any questions or concerns, or require any additional information, please do not hesitate to contact the undersigned at your convenience.

Sincerely,



Michelle Burger
Environmental Coordinator / Gahcho Kué Mine
867.679.5812
Michelle.Burger@debeersgroup.com

Attachments:

Figure 1. Location of GNWT Spill #2024259

Figure 2. Spill at Sewage Treatment Plant, GNWT Spill #2024259

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Figure 3. Verification of Spill Clean Up, GNWT Spill #2024259

Figure 4. NT-NU Spill Report GNWT Spill #2024259



Figure 1. Location of GNWT Spill #2024259

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Figure 2. Spill at Dorm A11 Lift Station, GNWT Spill #2024259

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Figure 3. Verification of spill clean up, GNWT Spill #2024259

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NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND
OTHER HAZARDOUS MATERIALS



NT-NU 24-HOUR SPILL REPORT LINE
Tel: (867) 920-8130 • Email: spills@gov.nt.ca

REPORT LINE USE ONLY

A	Report Date: 07 08 24	Report Time: 10:59 am	<input checked="" type="checkbox"/> Original Spill Report OR <input type="checkbox"/> Update #. _____ to the Original Spill Report		Report Number:
B	Occurrence Date: 07 08 24	Occurrence Time: 7:45 am			
C	Land Use Permit Number (if applicable): MV2021D0009	Water Licence Number (if applicable): MV2005L2-0015			
D	Geographic Place Name or Distance and Direction from the Named Location: De Beers Group (Canada) Gahcho Kue Mine (Kennedy Lake, NT)	Region: <input checked="" type="checkbox"/> NT <input type="checkbox"/> Nunavut <input type="checkbox"/> Adjacent Jurisdiction or Ocean			
E	Latitude: 63 Degrees 26 Minutes 29 Seconds	Longitude: 109 Degrees 10 Minutes 42 Seconds			
F	Responsible Party or Vessel Name: De Beers Group	Responsible Party Address or Office Location: Suite 300 - 1801 Airport Road NE, Calgary Alberta Canada T2E 6X8			
G	Any Contractor Involved:	Contractor Address or Office Location:			
H	Product Spilled: <input type="checkbox"/> Potential Spill Sewage	Quantity in Litres, Kilograms or Cubic Metres: 100L	U.N. Number:		
I	Spill Source: Sewage Treatment Plant	Spill Cause: Failed High Level Float	Area of Contamination in Square Metres: 5		
J	Factors Affecting Spill or Recovery: None	Describe Any Assistance Required: None	Hazards to Persons, Property or Environment: None		
K	Additional Information, Comments, Actions Proposed or Taken to Contain, Recover or Dispose of Spilled Product and Contaminated Materials: At approximately 7:45am on July 8, 2024, the plant operator identified a spill at the Sewage Treatment Plant facility. The initial investigation revealed that the high-level float did not engage when the equalizer tanks reached capacity, leading to an overflow of approximately 100L. The operator was briefly away from the plant during the incident. Subsequently, <u>the floats were reset and have been operating correctly since then.</u> Shortly following the discovery of the spill, the contaminated gravel was removed, placed into drums, and transported to the waste management area for off-site disposal. Fresh gravel was then spread in the area in order to level the ground. The environmental impact is deemed minimal due to the small size of the spill and the characteristics of the affected area (gravel camp pad). A follow-up report outlining the root cause and corrective/preventive actions taken in response to this incident will be submitted within 30 days				
L	Reported to Spill Line by: Michelle Burger	Position: Environmental Coordinator	Employer: De Beers	Location Calling From: Gahcho Kue Mine	Telephone: (587) 702-5149
M	Any Alternate Contact: Mason Elwood	Position: Environmental Superintendant	Employer: De Beers	Alternate Contact Location: Off-Site	Alternate Telephone: (867) 679-5814

REPORT LINE USE ONLY

N	Received at Spill Line by:	Position:	Employer:	Location Called:	Report Line Number:
Lead Agency: <input type="checkbox"/> EC <input type="checkbox"/> CCG/TCMSS <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> AANDC <input type="checkbox"/> NEB <input type="checkbox"/> Other: _____					
Significance: <input type="checkbox"/> Minor <input type="checkbox"/> Major <input type="checkbox"/> Unknown			File Status: <input type="checkbox"/> Open <input type="checkbox"/> Closed		
Agency:	Contact Name:	Contact Time:	Remarks:		
Lead Agency:					
First Support Agency:					
Second Support Agency:					
Third Support Agency:					

Figure 4. NT-NU Spill Report GNWT Spill #2024259