

DE BEERS GROUP

October 2, 2021

Angela Love
Regulatory Officer
Mackenzie Valley Land and Water Board
7th Floor – 4922 48th Street
P.O. Box 2130
Yellowknife, NT X1A 2P6

Nahum Lee
Resource Management Officer III (Inspector)
North Slave Regional Office
Department of Lands
Government of the Northwest Territories
140 Bristol Avenue, Yellowknife, NT X1A 3T2

**Subject: Follow-Up Spill Report – Hydraulic – Gahcho Kué Mine – September 2, 2021
(GNWT Spill #2021378)**

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 #2021378, which occurred at the Gahcho Kué Mine at 00:00 on September 2, 2021.

An NT-NU Spill Report was completed and submitted via email to the NWT Spills Hotline (spills@gov.nt.ca) at 10:30 on September 2, 2021.

Incident Summary:

A Komatsu PC 5500 Shovel (Unit #: SH-002) was walking into the 5034 pit, after being returned to service post maintenance, when the operator noticed a leak on the boom from then boom hydraulic system. The operator then moved the unit out of the 5034 ramp entrance intersection and completed the shutdown procedure. At this point the operator deployed spill pads and booms, as well as informing his supervisor of the incident. Upon the field investigation, it was discovered that the root cause was the result of a O-ring failure on the boom side of the boom hydraulic manifold. The maintenance technician replaced the damaged o-ring, then re-filled the hydraulic system. Upon refilling the hydraulic system it was determined that approximately 500 litres of Hydraulic fluid were lost. Clean up of the contaminated area was then completed with the help of mine operations and the unit was returned to service.

Immediate Actions:

Upon shutdown, the operator deployed the unit's spill kit materials and informed their supervisor of the incident. A mobile maintenance shovel technician was called to the scene to repair the unit and determine the cause of the leak. Once repaired the unit was returned to service. The contaminated gravel was disposed of in the Type 3 area of the West Mine Rock Pile, and fresh material was placed within the impacted area.

Root Cause:

Upon investigation it was determined that an o-ring within the "H" position of the boom hydraulic manifold had failed, resulting in a spill. This failure was caused by to improper installation during the preceding maintenance earlier in the shift. This improper installation was not corrected by maintenance technicians and was returned to service in a damaged condition.

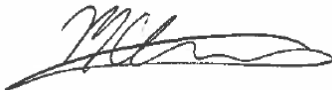
Follow-Up Actions:

The following corrective and preventative actions were identified during the internal investigation:

- Additional training of maintenance technicians to ensure that the proper work standard is observed and maintained throughout all maintenance activities.
- Ensure that additional checks are completed by the senior technician prior to the commissioning of equipment after maintenance.

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

Sincerely,



Mason Elwood
Environmental Coordinator / Gahcho Kué Mine
867.679.5814
mason.elwood@debeersgroup.com

Attachments:

Figure 1. Location of GNWT Spill #2021378

Figure 2. Initial Impact of GNWT Spill #2021378

Figure 3. Failed O-ring found upon investigation of failure resulting in GNWT Spill #2021378

Figure 4. Area of Spill after Remediation from GNWT Spill #2021378

Figure 5. Original Spill Report (GNWT Spill #2021378)



Figure 1. Location of GNWT Spill #2021378



Figure 2. Initial Impact of GNWT Spill #2021378



Figure 3. Failed O-ring Found upon Investigation of Failure Resulting in GWNT Spill #2021378



Figure 4. Area of Spill after Remediation from GWT Spill #2021378

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:	09 02 21	Report Time:	10:30 am	<input checked="" type="checkbox"/> Original Spill Report OR <input type="checkbox"/> Update # _____ to the Original Spill Report	Report Number:
	B	Occurrence Date:	09 02 21	Occurrence Time:		
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:			Region:		
	De Beers Group (Canada) Gahcho Kue Mine (Kennady Lake, NT)			<input checked="" type="checkbox"/> NT <input type="checkbox"/> Nunavut <input type="checkbox"/> Adjacent Jurisdiction or Ocean		
E	Latitude:			Longitude:		
	63 Degrees 26 Minutes 7 Seconds			109 Degrees 13 Minutes 2 Seconds		
F	Responsible Party or Vessel Name:		Responsible Party Address or Office Location:			
	De Beers Group		Suite 300 - 1601 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	Quantity in Litres, Kilograms or Cubic Metres:	U.N. Number:		
	Hydraulic oil		500 litres			
I	Spill Source:		Spill Cause:		Area of Contamination in Square Metres:	
	Komatsu PC 5500 Shovel (SH-002)		Failed O-Ring		10	
J	Factors Affecting Spill or Recovery:		Describe Any Assistance Required:		Hazards to Persons, Property or Environment:	
	None		None		None	
K	Additional Information, Comments, Actions Proposed or Taken to Contain, Recover or Dispose of Spilled Product and Contaminated Materials:					
	At 00:00 on September 2, 2021 approximately 500L of hydraulic oil was released from SH-002, a Komatsu PC 5500 Shovel, due to a failed o-ring. The release occurred at the top of the ramp into the 5034 pit as the shovel was being moved into the open pit. Upon initial inspection during replacement of the o-ring, it was discovered that the o-ring was pinched during installation of a newly installed hose.					
	Further details will be included in a follow up report provided within the next 30 days.					
L	Reported to Spill Line by:	Position:	Employer:	Location Calling From:	Telephone:	
	Allan Knight	Env. Coordinator	De Beers	Gahcho Kue Mine	(867) 679-5812	
M	Any Alternate Contact:	Position:	Employer:	Alternate Contact Location:	Alternate Telephone:	
	Mason Elwood	Env. Coordinator	De Beers	Off Site	(867) 679-5814	

REPORT LINE USE ONLY

N	Received at Spill Line by:	Position:	Employer:	Location Called:	Report Line Number:
	Lead Agency:			Significance:	
	<input type="checkbox"/> EC <input type="checkbox"/> CCG/TCMSS <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA			<input type="checkbox"/> Minor	
	<input type="checkbox"/> AANDC <input type="checkbox"/> NEB <input type="checkbox"/> Other: _____			<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 5. Original Spill Report (GNWT Spill #2021378)