

**APPENDIX E.8.7.2**  
**INITIAL AND FOLLOW UP SPILL REPORTS**  
**OTHER**  
**(Part 5)**



November 21, 2017

Resource Management Officer  
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Indigenous and Northern Affairs Canada  
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Manager, Major Projects  
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**Re: Follow-up to Spill #17-392**  
**Mary River Project - Water Licence No. 2AM-MRY1325**

**Summary:**

On October 23rd 2017, a fuel tank on the Mile Port refueling station was being filled using a tanker truck, when the overflow valve on the truck began leaking onto the ground. Initial investigation indicated a newly installed generator powering the fuel pump had been installed incorrectly. As a result, the pump did not operate as designed, which subsequently reversed the flow of fuel. An estimated 200 L of fuel was released before the operator was able to stop the flow, impacting an area of approximately 6m<sup>2</sup>. The spill was confined to the fueling station's lined engineered containment berm, which was covered with compacted snow. The spill occurred >200m from Philips Creek with no possibility of migrating.

**Immediate and Follow-Up Action:**

The fuel pump station was shut off and valves from the fuel tank were closed. Spill booms and adsorbent pads were deployed in strategic locations to ensure the spill remained within the lined engineered containment berm. The overflow release on the fuel tanker was plugged to prevent ongoing release. The contaminated snow was collected and deposited in an engineered containment berm at Milne Port, specific for hazardous storage. The newly installed generator was reconfigured to power the fuel pump in the intended and labelled direction, addressing the potential for the incident to be repeated.

**Recommendations:**

Inspection of generator configuration including a bump test conducted by an electrician after all new installations and servicing.

**Current Status:**

The fuel pump station and fuel tanker are currently back in operation and the generators powering the fuel pump station are in the correct configuration for the direction of flow labelled on the pump.

Should you require further information or clarification on the above noted spill, please feel free to contact William Bowden at (647) 253-0596 x6016, Connor Devereaux (647) 253- 0596 x6016 or Allan Knight at (647) 253-0596 x5098

Prepared by:

*B. Widdowson*

Ben Widdowson  
Environmental Coordinator

Reviewed by:

*Bill Bowden*

William Bowden  
Environmental Superintendent

Attach: Photos, Map, Baffinland NT-NU Spill Report

cc. Todd Burlingame, Sylvain Proulx, William Bowden, Connor Devereaux, Allan Knight, Gerald Rogers, Tim Sewell, (Baffinland), Stephen Bathroy (QIA), Erik Allain, Sarah Forte,( INAC)



Photo 1. Overflow release port



Photo 2. Fuel pump, switch, and valve

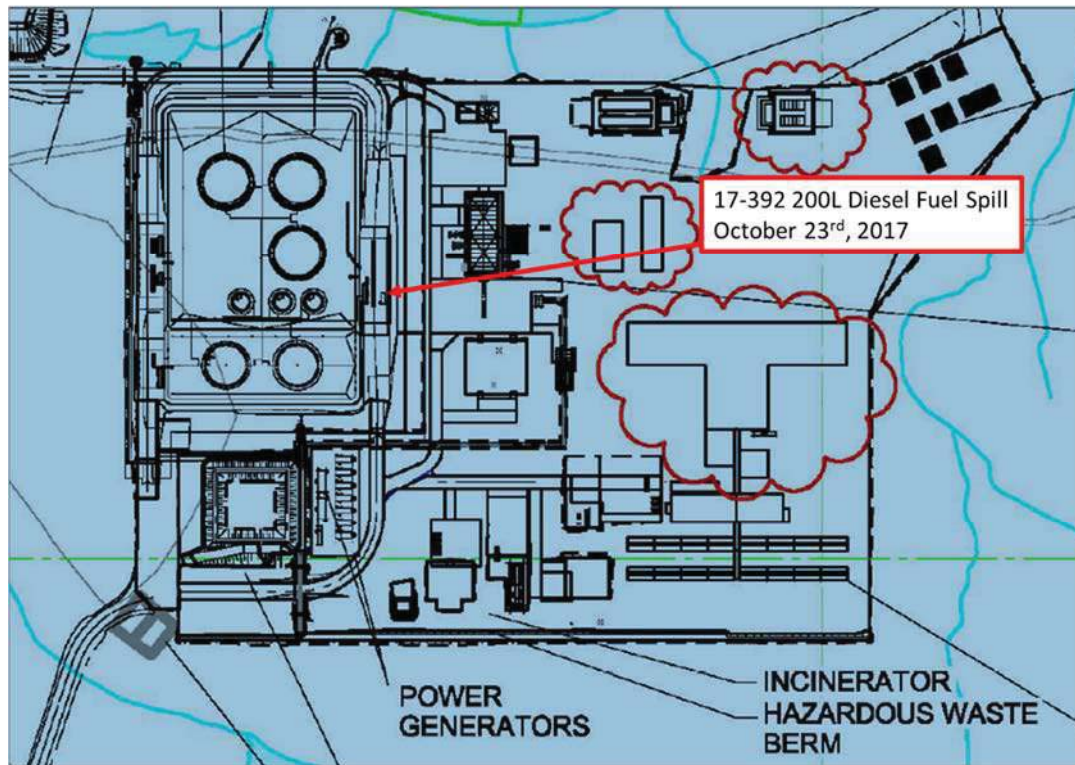


Figure 1. Map of Spill Location



# NT-NU Spill Report (Baffinland)



Canada

## NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

<b>A</b>	REPORT DATE: MONTH – DAY – YEAR <b>10-23-2017</b>	REPORT TIME <b>15:00</b>	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER <b>17 - 392</b>
	OCCURRENCE DATE: MONTH – DAY – YEAR <b>10-23-2017</b>	OCCURRENCE TIME <b>5:25</b>		
<b>C</b>	LAND USE PERMIT NUMBER (IF APPLICABLE) <b>IOL - Commercial Lease: Q13C301</b>		WATER LICENCE NUMBER (IF APPLICABLE) <b>2AM-MRY1325 Type "A"</b>	
	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION <b>Mary River Mine Site, Baffin Island, NU</b>		REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN	
<b>E</b>	LATITUDE DEGREES <b>71</b> MINUTES <b>19</b> SECONDS <b>32</b>		LONGITUDE DEGREES <b>79</b> MINUTES <b>22</b> SECONDS <b>24</b>	
<b>F</b>	RESPONSIBLE PARTY OR VESSEL NAME <b>Baffinland Iron Mines Corp.</b>	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION <b>2275 Middle Road East, Suite 300, Oakville, ON L6H 0C3</b>		
<b>G</b>	ANY CONTRACTOR INVOLVED <b>N/A</b>	CONTRACTOR ADDRESS OR OFFICE LOCATION <b>N/A</b>		
<b>H</b>	PRODUCT SPILLED <b>Diesel fuel</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>Approx. 200 L</b>	U.N. NUMBER <b>N/A</b>	
	SECOND PRODUCT SPILLED (IF APPLICABLE) <b>N/A</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>N/A</b>	U.N. NUMBER <b>N/A</b>	
<b>I</b>	SPILL SOURCE <b>Fuel tanker truck</b>	SPILL CAUSE <b>Tank overflow</b>	AREA OF CONTAMINATION IN SQUARE METRES <b>6m2</b>	
<b>J</b>	FACTORS AFFECTING SPILL OR RECOVERY <b>On snow cover lined area</b>	DESCRIBE ANY ASSISTANCE REQUIRED <b>N/A</b>	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT <b>N/A</b>	
<b>K</b>	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS  <b>On October 23rd 2017, a fuel tank was being filled using a tanker truck, when the overflow valve on the truck began leaking onto the ground. Initial investigation, indicated a newly installed generator powering the fuel pump had been installed incorrectly. As a result the pump did not operate as designed, which subsequently reversed the flow of fuel. An estimated 200 L of fuel was released before the operator was able to stop the flow, impacting an area of approximately 6 m2. The spill was confined to the fueling station's lined engineered containment berm, which was covered with compacted snow. The spill occurred &gt;200m from Phillips Creek with no possibility of migrating. The contaminated snow was collected and deposited in the contaminated snow containment facility. This spill is being reported as required by the conditions of Water License no. 2AM-MRY1325, Part H, item 9 (b), pursuant to subsection 12(3) of the Nunavut Waters and Nunavut Surface Right Tribunal Act, and the GN's Environmental Protection Act para 5.1(a).</b>			
<b>L</b>	REPORTED TO SPILL LINE BY <b>William Bowden</b>	POSITION <b>Env. Superintendent</b>	EMPLOYER <b>Baffinland</b>	LOCATION CALLING FROM <b>Mary River</b>
<b>M</b>	ANY ALTERNATE CONTACT <b>Tim Sewell</b>	POSITION <b>Head of HSE</b>	EMPLOYER <b>Baffinland</b>	ALTERNATE TELEPHONE <b>416 364 8820</b>
REPORT LINE USE ONLY				
<b>N</b>	RECEIVED AT SPILL LINE BY STATION OPERATOR	POSITION	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NES <input type="checkbox"/> OTC		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				

PAGE 1 OF \_\_\_\_\_

December 24, 2017

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Nunavut Field Operations  
Indigenous and Northern Affairs Canada  
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Manager, Major Projects  
Qikiqtani Inuit Association  
P.O. Box 219  
Iqaluit, NU X0A 0H0

**Re: Follow-up to Spill #17-428, Reported on November 26, 2017**  
**Mary River Project - Water Licence No. 2AM-MRY1325**

**Summary:**

At 14:15 HRS on November 25<sup>th</sup>, 2017, an operator was relocating a tote of waste oil within the Mine Site Hazardous Waste Berm (MS-HWB-7). While he was placing the tote adjacent to a second stationary tote, the unnoticed damaged frame punctured the stationary tote. The operator immediately used a spill pad to slow the release of used oil and turned the tote on its side to contain the remaining product. Approximately 300 L of waste oil was released onto the pad, impacting an area approximately 6 m<sup>2</sup> within MS-HWB-7. The location of the spill was confined to the MS-HWB-7 which is an engineered lined containment facility. The spill occurred >400m from the closet water body with no possibility of migrating.

**Immediate and Follow-Up Action:**

The tote was immediately placed on its side to prevent further oil being spilt. The spill was then cleaned up using spill pads and the contaminated snow was scrapped up and placed into Quatrex bags, which will be transported to the Snow Dump in Milne Inlet.

**Recommendations:**

Ensure that operators are inspecting totes for structural stability before handling or preparing them for transport.

**Current Status:**

The tote has been emptied, the affected area has been cleaned up, and the contaminated snow will be treated using the oily water treatment facility during the open water season.

Should you require further information or clarification on the above noted spill, please feel free to contact the undersigned, William Bowden at (647) 253-0596 x6016 or Allan Knight at (647) 253-0596 x5098.

Prepared by:



Connor Devereaux  
Environmental Superintendent

Reviewed by:

Timothy Ray Sewell  
Head of Health, Safety and Environment

Attach: Photos, Map, NT-NU Spill Report

cc. Todd Burlingame, Megan Lord-Hoyle, Sylvain Proulx, Gerald Rogers, Francois Gaudreau, William Bowden, Allan Knight (Baffinland), Stephen Bathroy (QIA), Erik Allain, Sarah Forte( INAC)

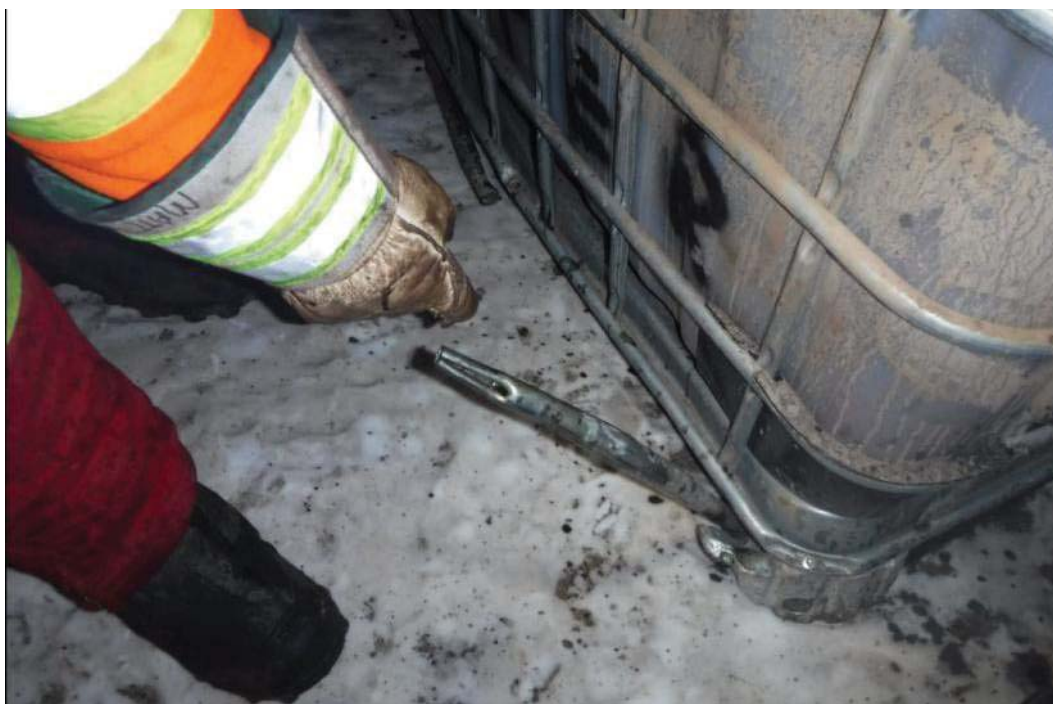


Photo 1. Damaged metal frame which caused the puncture



Photo 2. Absorbent booms and pads to prevent migration of the used oil





Photo 3. Clean up of affected snow and ice.

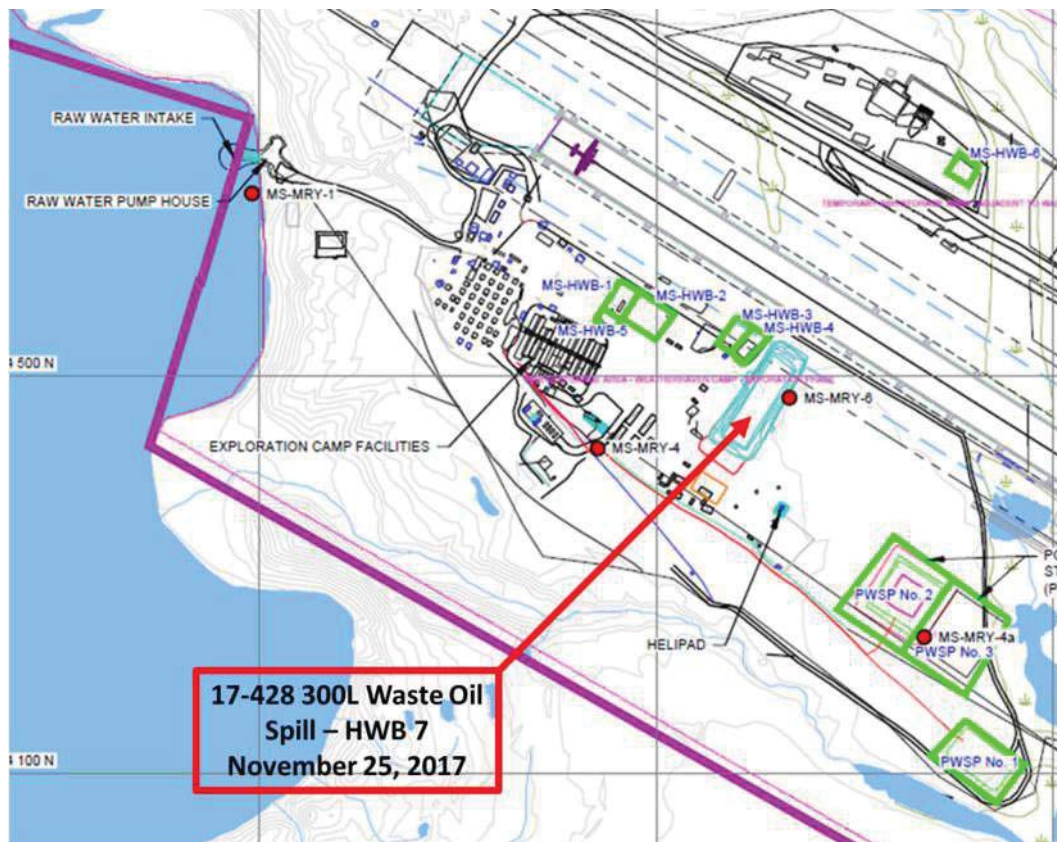


Figure 1: Map of Spill Location





Canada

# NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH - DAY - YEAR <b>11-26-2017</b>	REPORT TIME <b>09:00 hrs</b>	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT		REPORT NUMBER <b>17 - 428</b>
	B	OCCURRENCE DATE: MONTH - DAY - YEAR <b>11-25-2017</b>	OCCURRENCE TIME <b>14:15 hrs</b>		
C	LAND USE PERMIT NUMBER (IF APPLICABLE) <b>IOL - Commercial Lease: Q13C301</b>		WATER LICENCE NUMBER (IF APPLICABLE) <b>2AM-MRY1325 Type "A"</b>		
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION <b>Mary River Mine Site, Baffin Island, NU</b>		REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
E	LATITUDE DEGREES <b>71</b> MINUTES <b>19</b> SECONDS <b>31</b>		LONGITUDE DEGREES <b>79</b> MINUTES <b>22</b> SECONDS <b>06</b>		
F	RESPONSIBLE PARTY OR VESSEL NAME <b>Baffinland Iron Mines Corp.</b>	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION <b>2275 Middle Road East, Suite 300, Oakville, ON L6H 0C3</b>			
G	ANY CONTRACTOR INVOLVED <b>York Contracting</b>	CONTRACTOR ADDRESS OR OFFICE LOCATION			
H	PRODUCT SPILLED <b>Waste Oil</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>Approx. 300 Liters</b>	U.N. NUMBER <b>N/A</b>		
	SECOND PRODUCT SPILLED (IF APPLICABLE) <b>N/A</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>N/A</b>	U.N. NUMBER <b>N/A</b>		
I	SPILL SOURCE <b>Waste oil tote</b>	SPILL CAUSE <b>Punctured tote</b>	AREA OF CONTAMINATION IN SQUARE METRES		
J	FACTORS AFFECTING SPILL OR RECOVERY <b>On ice/snow in lined berm</b>	DESCRIBE ANY ASSISTANCE REQUIRED <b>N/A</b>	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT <b>None</b>		
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS  <b>On November 25th, a Surface Works loader operator was lining up totes of waste oil in the Mine Site Hazardous Waste Berm #7 (HWB-7). The operator proceeded to move a tote beside an adjacent tote but did not notice the metal frame was bent on the tote being moved. The damaged metal frame punctured a hole into the adjacent stationary tote causing a leak. The operator immediately used a spill pad to slow down the leak and turned the tote on its side to contain the remaining product. Approximately 300 L of waste oil was released in HWB-7, which is a engineered lined containment facility. A plan is currently being developed for clean up of the released oil; further details of this incident will be provided in the follow-up report. The closest water body is &gt;400 m and is currently frozen; the spill is confined to HWB-7. This spill is being reported as required by the conditions of Water Licence No. 2AM-MRY1325, Part H, item 9 (b) pursuant to subsection 12(3) of the Nunavut Waters and Nunavut Surface Rights Tribunal Act.</b>				
L	REPORTED TO SPILL LINE BY <b>Connor Devereaux</b>	POSITION <b>Env. Superintendent</b>	EMPLOYER <b>Baffinland</b>	LOCATION CALLING FROM <b>Mary River</b>	TELEPHONE <b>6016</b>
M	ANY ALTERNATE CONTACT <b>Tim Sewell</b>	POSITION <b>Head of HSE</b>	EMPLOYER <b>Baffinland</b>	ALTERNATE CONTACT <b>Mary River</b>	ALTERNATE TELEPHONE <b>6054</b>
REPORT LINE USE ONLY					
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			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					

PAGE 1 OF 1

Figure 2: NT-NU Spill Report



January 20, 2018

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Manager, Major Projects  
Qikiqtani Inuit Association  
P.O. Box 219  
Iqaluit, NU X0A 0H0

**Re: Follow-up to Spill #17-451**  
**Mary River Project - Water Licence No. 2AM-MRY1325**

**Summary:**

At 16:00 HRS on December 21st, an employee conducting routine lift station inspections observed that the influent line to the Weatherhaven greywater lift station had separated at a coupling. Upon initial investigation, the pipe installed between fittings appeared too short and had separated from adjoining couplings. Approximately 600L of greywater was released into the lift station building, migrating out under the base, impacting an area of 15m<sup>2</sup>. The location of the spill was confined to the Weatherhaven Complex pad. The spill is >200m from Camp Lake which is ice covered.

**Immediate and Follow-Up Action:**

Sources to the lift station were immediately shut off. Greywater released inside the building and surrounding camp pad was sucked up using a vac truck and taken to the Polishing Waste Stabilization Pond. The pipes and fitting were replaced before the lift station was put back into service. The contaminated snow was collected and deposited in an engineered containment berm at Milne Port.

**Recommendations:**

Routine inspections of the water lines and lift stations will continue to be completed to ensure all components are functioning as designed.

**Current Status:**

The lift station is currently back in operation and inspected regularly.

Should you require further information or clarification on the above noted spill, please feel free to contact William Bowden or Connor Devereaux at (647) 253- 0596 x6016.

Prepared by:

A handwritten signature in black ink, appearing to be "DR" or similar initials.

Dominic Ritgen  
Environmental Coordinator

Reviewed by:

A handwritten signature in black ink, appearing to be "Connor Devereaux".

Connor Devereaux  
Environmental Superintendent

Attach: Photos, Map, Baffinland NT-NU Spill Report

cc. Todd Burlingame, Sylvain Proulx, Tim Sewell, William Bowden, Allan Knight, Gerald Rogers, Francois Gaudrau (Baffinland), Stephen Bathroy (QIA), Erik Allain, Sarah Forte( INAC)



Photo 1. Repaired coupling at lift station.



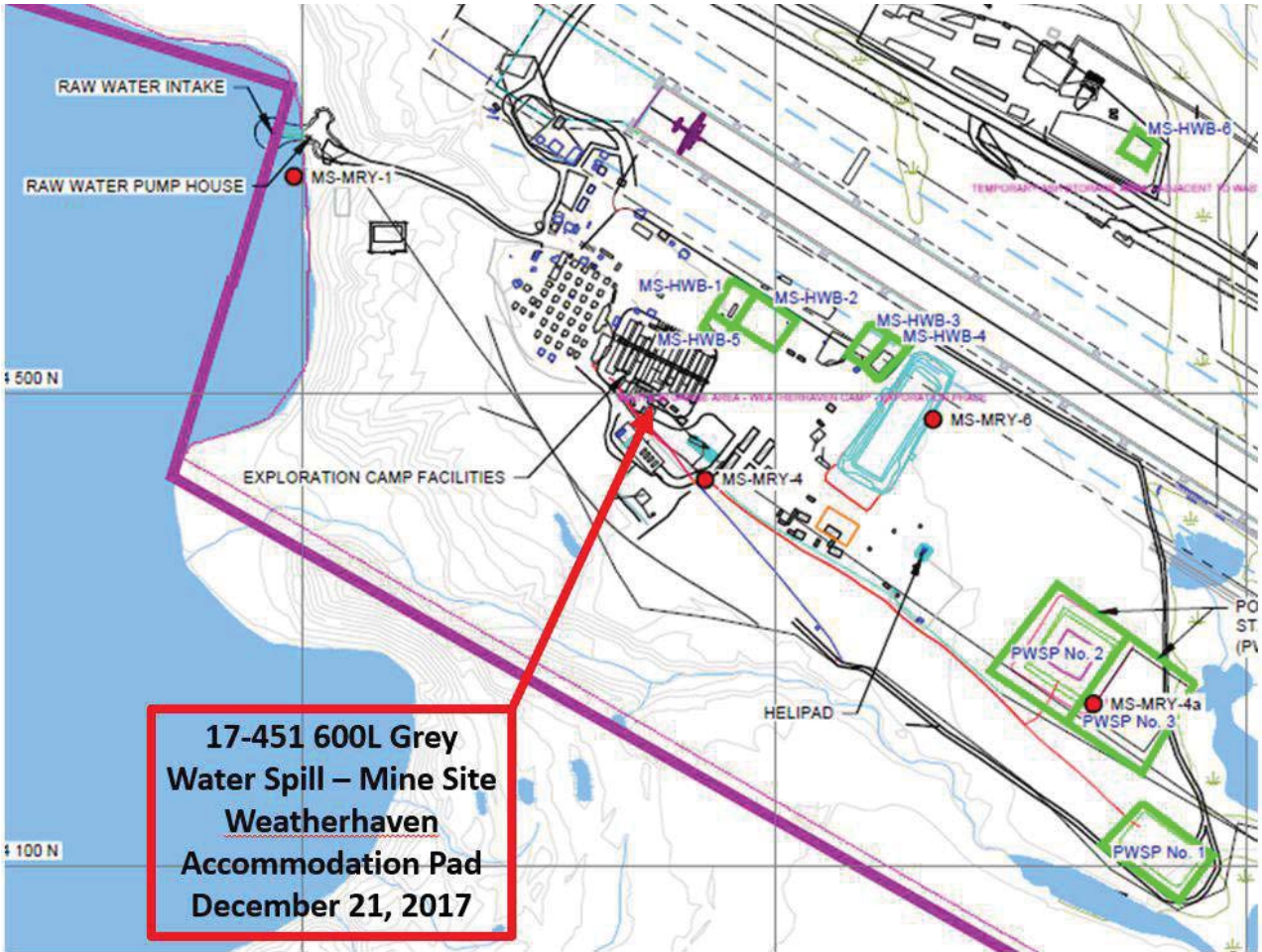
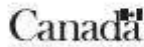


Figure 1. Map of Spill Location



# NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

<b>A</b>	REPORT DATE: MONTH - DAY - YEAR <b>12-22-2017</b>	REPORT TIME <b>17:00</b>	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER <b>17-451</b>
<b>B</b>	OCCURRENCE DATE: MONTH - DAY - YEAR <b>12-21-2017</b>	OCCURRENCE TIME <b>16:00</b>		
<b>C</b>	LAND USE PERMIT NUMBER (IF APPLICABLE) <b>IOL - Commercial Lease: Q13C301</b>	WATER LICENCE NUMBER (IF APPLICABLE) <b>2AM-MRY1325 Type "A"</b>		
<b>D</b>	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION <b>Mary River Mine Site, Baffin Island, NU</b>		REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN	
<b>E</b>	LATITUDE DEGREES <b>71</b> MINUTES <b>19</b> SECONDS <b>32</b>		LONGITUDE DEGREES <b>79</b> MINUTES <b>22</b> SECONDS <b>26</b>	
<b>F</b>	RESPONSIBLE PARTY OR VESSEL NAME <b>Baffinland Iron Mines Corp.</b>	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION <b>2275 Middle Road East, Suite 300, Oakville, ON L6H 0C3</b>		
<b>G</b>	ANY CONTRACTOR INVOLVED <b>N/A</b>	CONTRACTOR ADDRESS OR OFFICE LOCATION <b>N/A</b>		
<b>H</b>	PRODUCT SPILLED <b>Grey Water</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>Approx. 600 L</b>	U.N. NUMBER <b>N/A</b>	
<b>H</b>	SECOND PRODUCT SPILLED (IF APPLICABLE) <b>N/A</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>N/A</b>	U.N. NUMBER <b>N/A</b>	
<b>I</b>	SPILL SOURCE <b>Lift station</b>	SPILL CAUSE <b>Pipe fitting failure</b>	AREA OF CONTAMINATION IN SQUARE METRES <b>15m2</b>	
<b>J</b>	FACTORS AFFECTING SPILL OR RECOVERY <b>Congested area, snow and ice</b>	DESCRIBE ANY ASSISTANCE REQUIRED <b>N/A</b>	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT <b>N/A</b>	
<b>K</b>	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS <b>At 16:00 HRS on December 21st, an employee conducting routine lift station inspections observed that the influent line to the Weatherhaven grey water lift station had separated at a coupling. Sources to the lift station were immediately shut off. Grey water released inside the building and surrounding camp pad was sucked up using a vac truck. The pipe and fittings were replaced before the lift station was put back into service. Upon initial investigation, the pipe installed between fittings appeared too short and had separated from adjoining couplings. Approximately 600 L of grey water was released into the lift station building, migrating out under the base, impacting an area of 15 m2. The location of the spill was confined to the Weatherhaven Complex pad. The spill is &gt;200 m from Camp Lake which is currently ice covered. Further details of the cleanup will be provided in the follow-up report. This spill is being reported as required by the conditions of water license no. 2AM-MRY1325, Part H, item 9 (b) pursuant to subsection 12(3) of the Nunavut Waters and Nunavut Surface Rights Tribunal Act.</b>			
<b>L</b>	REPORTED TO SPILL LINE BY <b>Connor Devereaux</b>	POSITION <b>Env. Superintendent</b>	EMPLOYER <b>Baffinland</b>	LOCATION CALLING FROM <b>Mary River</b>
<b>M</b>	ANY ALTERNATE CONTACT <b>Tim Sewell</b>	POSITION <b>Head of HSE</b>	EMPLOYER <b>Baffinland</b>	ALTERNATE CONTACT <b>ext. 6016</b>
REPORT LINE USE ONLY				
<b>N</b>	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN	
AGENCY			FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED	
CONTACT NAME			REMARKS	
CONTACT TIME				
LEAD AGENCY				
FIRST SUPPORT AGENCY				
SECOND SUPPORT AGENCY				
THIRD SUPPORT AGENCY				

Figure 2. Baffinland NT NU Spill Report





January 23, 2018

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Nunavut Field Operations  
Indigenous and Northern Affairs Canada  
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Manager, Major Projects  
Qikiqtani Inuit Association  
P.O. Box 219  
Iqaluit, NU X0A 0H0

**Re: Follow-up to Spill #17- 452, Reported on December 23, 2017**  
**Mary River Project - Water Licence No. 2AM-MRY1325**

**Summary:**

On December 23, 2017 at 9:15 HRS, a Site Services Fixed Plant employee observed fluid outside BA wing south lift station while conducting routine lift station inspections. Upon initial investigation, it was determined that the influent line into the lift station had separated at a Fernco coupling. Approximately 150 litres of raw sewage and grey water was released onto the adjacent ground, affecting an area of approximately 5 m<sup>2</sup>. The location of the spill was confined to the Port Site Complex pad. The spill is >150 m from the nearest water body which is currently frozen.

**Immediate and Follow-Up Action:**

Fernco coupler was replaced and insulated. A wood block was placed to add extra support for the coupler. The contaminated snow was collected and deposited in the Polishing Waste Stabilization Pond.

**Recommendations:**

Routine inspections of the pipes and inlets will continue to be completed to ensure all components are functioning as designed and there are no worn out or damaged parts. Investigation into the functionality of Fernco couplings currently being used versus another type of coupling.

**Current Status:**

The lift station is currently back in operation and inspected regularly.

Should you require further information or clarification on the above noted spill, please feel free to contact William Bowden or Connor Devereaux at (647) 253- 0596 x6016.

Prepared By:

A handwritten signature in black ink, appearing to read "Benjamin Widdowson".

Ben Widdowson  
Environmental Coordinator

Reviewed by:

A handwritten signature in black ink, appearing to read "Connor Devereaux".

Connor Devereaux  
Environmental Superintendent

Attach: Photos, Map, NT-NU Spill Report

cc. Todd Burlingame, Sylvain Proulx, Gerald Rogers, Francois Gaudrau, Tim Sewell, William Bowden, (Baffinland), Stephen Bathroy (QIA), Erik Allain, Sarah Forte (INAC)





**Photo 1 – Fernco coupler separated on the 4" gravity line into the lift station**



**Photo 2 – New coupler and wood support installed on 4” gravity line**



**Figure 1 – Map of spill location**



# NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spillis@gov.nt.ca

REPORT LINE USE ONLY

<b>A</b>	REPORT DATE: MONTH - DAY - YEAR <b>12-24-2017</b>	REPORT TIME <b>21:15</b>	<input type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT		REPORT NUMBER <b>17 - 452</b>
	<b>B</b>	OCCURRENCE DATE: MONTH - DAY - YEAR <b>12-23-2017</b>	OCCURRENCE TIME <b>09:15</b>		
<b>C</b>	LAND USE PERMIT NUMBER (IF APPLICABLE) <b>IOL - Commercial Lease: Q13C301</b>		WATER LICENCE NUMBER (IF APPLICABLE) <b>2AM-MRY1325 Type "A"</b>		
<b>D</b>	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION <b>Mary River Mine Site, Baffin Island, NU</b>		REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
<b>E</b>	LATITUDE DEGREES <b>71</b> MINUTES <b>53</b> SECONDS <b>02</b>		LONGITUDE DEGREES <b>80</b> MINUTES <b>53</b> SECONDS <b>07</b>		
<b>F</b>	RESPONSIBLE PARTY OR VESSEL NAME <b>Baffinland Iron Mines Corp.</b>	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION <b>2275 Middle Road East, Suite 300, Oakville, ON L6H 0C3</b>			
<b>G</b>	ANY CONTRACTOR INVOLVED <b>N/A</b>	CONTRACTOR ADDRESS OR OFFICE LOCATION <b>N/A</b>			
<b>H</b>	PRODUCT SPILLED <b>Raw sewage</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>&lt;150L</b>	U.N. NUMBER <b>N/A</b>		
	SECOND PRODUCT SPILLED (IF APPLICABLE) <b>N/A</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>N/A</b>	U.N. NUMBER <b>N/A</b>		
<b>I</b>	SPILL SOURCE <b>Lift Station</b>	SPILL CAUSE <b>Pipe fitting failure</b>	AREA OF CONTAMINATION IN SQUARE METRES <b>5 m2</b>		
<b>J</b>	FACTORS AFFECTING SPILL OR RECOVERY <b>Congested area, snow and ice</b>	DESCRIBE ANY ASSISTANCE REQUIRED <b>N/A</b>	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT <b>N/A</b>		
<b>K</b>	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS  On December 23, 2017 at 9:15 HRS a Site Services Fixed Plant employee observed fluid outside BA wing south lift station while conducting routine lift station inspections. Upon initial investigation, it was determined that the influent line into the lift station had separated at a coupling. Approximately 150 litres of raw sewage and grey water was released onto the adjacent ground, affecting an area of approximately 5 m2. The location of the spill was confined to the Port Site Complex pad. The spill is >150 m from the nearest water body which is currently frozen. The investigation and repairs are ongoing and further details of the cleanup will be provided in the follow-up report. This spill is being reported as required by the conditions of water licence no. 2AM-MRY1325, Part H, item 9 (b) pursuant to subsection 12(3) of the Nunavut Waters and Nunavut Surface Rights Tribunal Act.				
<b>L</b>	REPORTED TO SPILL LINE BY <b>Connor Devereaux</b>	POSITION <b>Env. Superintendent</b>	EMPLOYER <b>Baffinland</b>	LOCATION CALLING FROM <b>Mary River</b>	TELEPHONE <b>416 364 8820</b>
<b>M</b>	ANY ALTERNATE CONTACT <b>Tim Sewell</b>	POSITION <b>Head of HSE</b>	EMPLOYER <b>Baffinland</b>	ALTERNATE CONTACT LOCATION	ALTERNATE TELEPHONE <b>ext. 6016</b>
REPORT LINE USE ONLY					
<b>N</b>	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			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					

PAGE 1 OF 1

Figure 2 – NT-NU Spill report 17-452

2275 Upper Middle Road East, Suite 300 | Oakville, ON, Canada L6H 0C3  
Main: 416.364.8820 | Fax: 416.364.0193 | www.baffinland.com



January 24, 2018

Resource Management Officer  
Nunavut Field Operations  
Indigenous and Northern Affairs Canada  
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Jonathan.mesher@aadnc-aadnc.gc.ca

Manager, Major Projects  
Qikiqtani Inuit Association  
P.O. Box 219  
Iqaluit, NU X0A 0H0

**Re: Follow-up to Spill #17- 453, Reported on December 24, 2017**  
**Mary River Project - Water Licence No. 2AM-MRY1325**

**Summary:**

On December 24, 2017 at 08:45 HRS an employee observed steam coming from the perimeter of the BD wing south lift station while conducting daily inspections. Upon initial investigation, it was determined the lift station pump was not operational due to a failed electrical thermostat inside the lift station enclosure causing the main breaker to trip. Therefore no power to float switches or pumps causing the holding tank to overflow. Approximately 300 L of sewage was released to the adjacent camp pad ground surface, impacting an approximately 8 m<sup>2</sup> area. This location is greater than >100 m to the nearest water course (which is currently frozen).

**Immediate and Follow-Up Action:**

The thermostat was replaced, system reset and monitored to ensure system was functioning properly. All sewage within lift station box was pumped back through WWTP. The contaminated snow was collected and deposited in the Polishing Waste Stabilization Pond.

**Recommendations:**

Routine inspections of the pipes and inlets will continue to be completed to ensure all components are functioning as designed.

**Current Status:**

The pump and thermostat are working properly. Routine daily inspections are ongoing.

Should you require further information or clarification on the above noted spill, please feel free to contact William Bowden or Connor Devereaux at (647) 253- 0596 x6016.

Prepared By:

A handwritten signature in black ink that reads "Benjamin Widdowson".

Ben Widdowson  
Environmental Coordinator

Reviewed by:

A handwritten signature in black ink that reads "Connor Devereaux".

Connor Devereaux  
Environmental Superintendent

Attach: Photos, Map, NT-NU Spill Report

cc. Todd Burlingame, Sylvain Proulx, Gerald Rogers, Francois Gaudrau, William Bowden, Tim Sewell  
(Baffinland), Stephen Bathroy (QIA), Erik Allain, Jonathan Mesher, Sarah Forte (INAC)



**Photo 1 – Water Pooling on the inside of the Lift Station December 24, 2017**





Spill Report 17-453  
300L Raw Sewage

**Figure 1 – Map of spill location**

# NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH - DAY - YEAR <b>12-25-2017</b>	REPORT TIME <b>12:00</b>	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER <b>17 - 453</b>
	OCURRENCE DATE: MONTH - DAY - YEAR <b>12-24-2017</b>	OCURRENCE TIME <b>08:45</b>		
C	LAND USE PERMIT NUMBER (IF APPLICABLE) <b>IOL - Commercial Lease: Q13C301</b>	WATER LICENCE NUMBER (IF APPLICABLE) <b>2AM-MRY1325 Type "A"</b>		
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION <b>Mary River Mine Site, Baffin Island, NU</b>		REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN	
E	LATITUDE DEGREES <b>71</b> MINUTES <b>53</b> SECONDS <b>02</b>	LONGITUDE DEGREES <b>80</b> MINUTES <b>53</b> SECONDS <b>14</b>		
F	RESPONSIBLE PARTY OR VESSEL NAME <b>Baffinland Iron Mines Corp.</b>	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION <b>2275 Middle Road East, Suite 300, Oakville, ON L6H 0C3</b>		
G	ANY CONTRACTOR INVOLVED <b>N/A</b>	CONTRACTOR ADDRESS OR OFFICE LOCATION <b>N/A</b>		
H	PRODUCT SPILLED <b>Raw Sewage</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>&lt;300L</b>	U.N. NUMBER <b>N/A</b>	
	SECOND PRODUCT SPILLED (IF APPLICABLE) <b>N/A</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>N/A</b>	U.N. NUMBER <b>N/A</b>	
I	SPILL SOURCE <b>PSC BD South Wing lift station</b>	SPILL CAUSE <b>Electrical failure</b>	AREA OF CONTAMINATION IN SQUARE METRES <b>8 m2</b>	
J	FACTORS AFFECTING SPILL OR RECOVERY <b>Congested area, snow and ice</b>	DESCRIBE ANY ASSISTANCE REQUIRED <b>N/A</b>	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT <b>N/A</b>	
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS  <b>On December 24, 2017 at 08:45 HRS an employee observed steam coming from the perimeter of the BD wing south lift station while conducting daily inspections. Upon initial investigation, it was determined the lift station pump was not operational due to a failed electrical thermostat inside the lift station enclosure causing the main breaker to trip. Therefore no power to float switches or pumps causing the holding tank to overflow. The thermostat was replaced, system reset and appears to be functioning properly. Approximately 300 L of sewage was released to the adjacent camp pad ground surface, impacting an approximately 8 m2 area. This location is greater than &gt;100 m to the nearest water course (which is currently frozen). The investigation is ongoing and further details of the cleanup will be provided in the follow-up report. This spill is being reported as required by the conditions of NWT Water License no. 2AM-MRY1325, Part H, item 9 (b) pursuant to subsection 12(3) of the Nunavut Waters and Nunavut Surface Rights Tribunal Act.</b>			
L	REPORTED TO SPILL LINE BY <b>Connor Devereaux</b>	POSITION <b>Env. Superintendent</b>	EMPLOYER <b>Baffinland</b>	LOCATION CALLING FROM <b>Mary River</b>
M	ANY ALTERNATE CONTACT <b>Tim Sewell</b>	POSITION <b>Head of HSE</b>	EMPLOYER <b>Baffinland</b>	ALTERNATE CONTACT <b>6016</b>
REPORT LINE USE ONLY				
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			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				

PAGE 1 OF 1

Figure 2 – NT-NU Spill report 17-453

2275 Upper Middle Road East, Suite 300 | Oakville, ON, Canada L6H 0C3  
Main: 416.364.8820 | Fax: 416.364.0193 | www.baffinland.com



April 20 2017

Resource Management Officer  
Nunavut Field Operations  
Indigenous and Northern Affairs Canada  
Box 100  
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Justin.Hack@aandc-aadnc.gc.ca

Director, Major Projects  
Qikiqtani Inuit Association  
P.O. Box 219  
Iqaluit, NU X0A 0H0

**Re: Follow-up to Spill #17-088, Reported on March 21, 2017**  
**Mary River Project - Water Licence No. 2AM-MRY1325**

**Summary:**

On March 20th, 2017 at approximately 18:00, a fire was reported at KM 70 on the Milne Port Tote Road. The Mine rescue team was dispatched to extinguish the fire. The fuel and hydraulic tanks on the truck were not breached by the fire. Approximately 4m<sup>3</sup> of water was used to extinguish the fire. No foam or chemical suppressants were used.

The location of the spill was confined to the Tote Road surface, on IOL, with no possibility of migrating and is greater than 1km from the closest water body which is currently frozen.

**Immediate and Follow-Up Action:**

After fire was confirmed extinguished clean up began. Spill pads, secondary containment and heavy equipment were used to mitigate the spill and the contaminated snow was scraped up and disposed of in Quatrex bags. An inspection was done of the surrounding area to ensure no additional fuel or coolant was released on to the ground following the removal of the Ore Haul truck.

**Recommendations:**

Preventative maintenance inspection programs on Ore Haul trucks are continuing to be implemented to reduce operational breakdowns and resultant spills.

**Current Status:**

The scene of the fire has been cleaned up and the contaminated snow was placed in a lined engineered containment facility. The Ore Haul truck was floated back to maintenance for repair.

Should you require further information or clarification on the above noted spill, please feel free to contact William Bowden or Laura Taylor at (647) 253-0596 x6016.

Prepared By:

A handwritten signature in black ink, appearing to read "KBabin".

Katherine Babin  
Environmental Coordinator

Reviewed by:

A handwritten signature in black ink, appearing to read "Bill Bowden".

William Bowden  
Environmental Superintendent

Attach: Map, NT-NU Spill Report

cc. Todd Burlingame, Wayne McPhee, Sylvain Proulx, Robert Gagne, Lyle Hemmerling Shawn Perry (Baffinland) Stephen Bathory (QIA), Erik Allain, Sarah Forte, Jonathon Mesher (INAC)





Photo 1: Impacted water contained on the surface of the Tote Road



Photo 2: Ore Haul truck front cab tire- source of fire



Photo 3: Grader removing contaminated snow for placement into Quatrex Bags

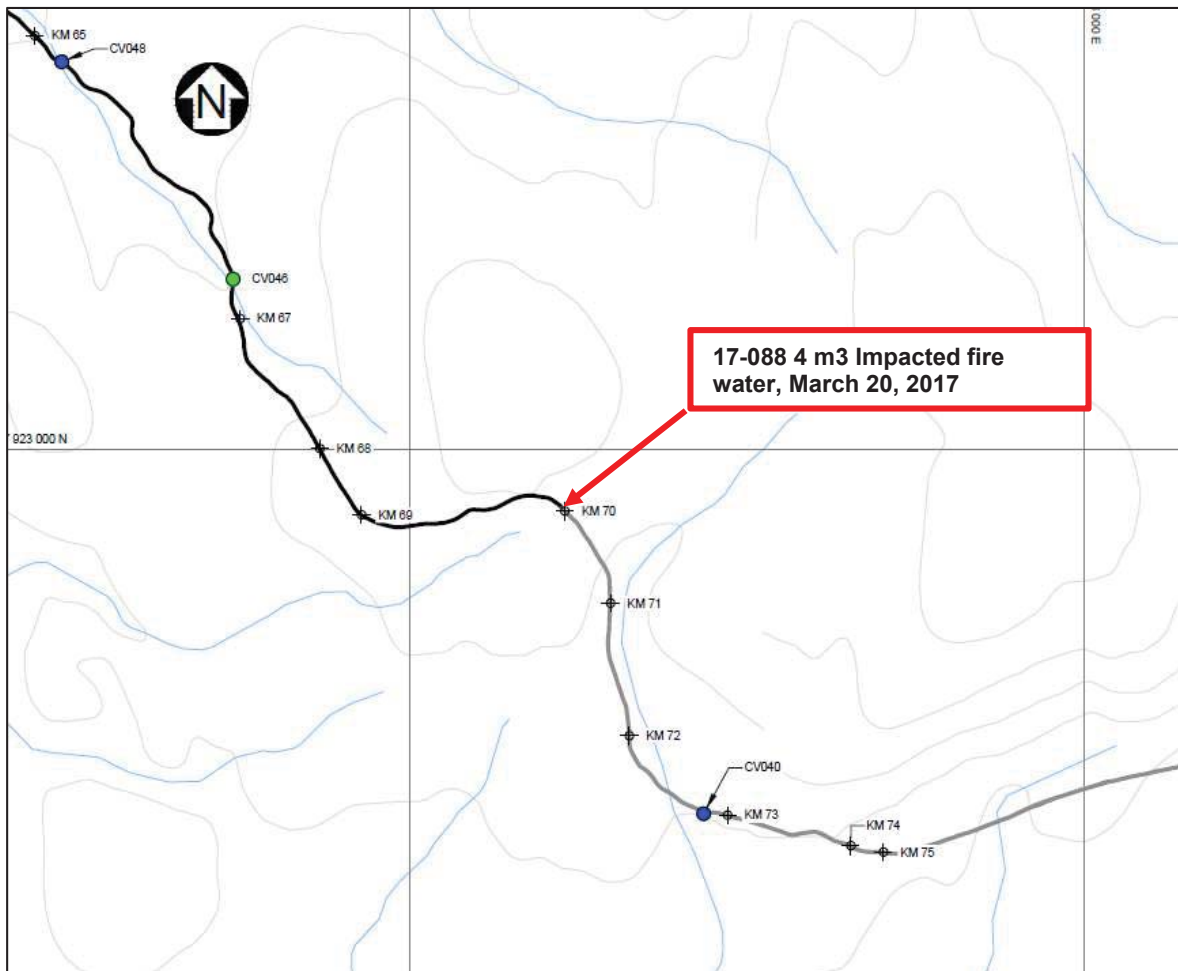


Figure 1 – Map of fire location, Milne Port Tote Road KM 70





# NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

<b>A</b>	REPORT DATE: MONTH – DAY – YEAR 03-21-2017	REPORT TIME 17:45 HRS	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # TO THE ORIGINAL SPILL REPORT	REPORT NUMBER 17-088
<b>B</b>	OCCURRENCE DATE: MONTH – DAY – YEAR 03-20-2017	OCCURRENCE TIME 18:00 HRS		
<b>C</b>	LAND USE PERMIT NUMBER (IF APPLICABLE) IOL - Commercial Lease: Q13C301	WATER LICENCE NUMBER (IF APPLICABLE) 2AM-MRY1325 Type "A"		
<b>D</b>	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Mary River Mine Site, Baffin Island, NU	REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
<b>E</b>	LATITUDE DEGREES 71 MINUTES 24 SECONDS 12	LONGITUDE DEGREES 80 MINUTES 02 SECONDS 59		
<b>F</b>	RESPONSIBLE PARTY OR VESSEL NAME Baffinland Iron Mines Corp.	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION 2275 Middle Road East, Suite 300, Oakville, ON L6H 0C3		
<b>G</b>	ANY CONTRACTOR INVOLVED N/A	CONTRACTOR ADDRESS OR OFFICE LOCATION N/A		
<b>H</b>	PRODUCT SPILLED Impacted Fire Water	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES Approx. 4 m3	U.N. NUMBER N/A	
	SECOND PRODUCT SPILLED (IF APPLICABLE) N/A	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES N/A	U.N. NUMBER N/A	
<b>I</b>	SPILL SOURCE Fire/ Fire Fighting Equipment	SPILL CAUSE Fire Fighting	AREA OF CONTAMINATION IN SQUARE METRES Approx 100m2	
<b>J</b>	FACTORS AFFECTING SPILL OR RECOVERY Fire, Frozen Conditions	DESCRIBE ANY ASSISTANCE REQUIRED Heavy Equipment	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT N/A	
<b>K</b>	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS  On March 20th, 2017 at approximately 18:00, a fire was reported at KM 70 on the Milne Port Tote Road. The Mine rescue team was dispatched to extinguish the fire. The fuel and hydraulic tanks on the truck were not breached by the fire. Approximately 4m3 of water was used to extinguish the fire. No foam or chemical suppressants were used. After fire was confirmed extinguished clean up began. Spill pads, secondary containment and heavy equipment were used to mitigate the spill and the contaminated snow was scraped up and disposed of in Quatrex bags. The location of the spill was confined to the Tote Road surface, on IOL, with no possibility of migrating and is greater than 1km from the closest water body which is currently frozen. The investigation is ongoing and further details of the incident will be provided in the follow-up report. This spill is being reported as required by the conditions of water license no. 2AM-MRY1325, Part H, item 9 (b) as per subsection 12(3) of the Nunavut Waters and Nunavut Surface Rights Tribunal Act.			
<b>L</b>	REPORTED TO SPILL LINE BY William Bowden	POSITION Env. Superintendent	EMPLOYER Baffinland	LOCATION CALLING FROM 647-253-0596
				TELEPHONE ext. 6016
<b>M</b>	ANY ALTERNATE CONTACT Wayen McPhee	POSITION Env. Director	EMPLOYER Baffinland	ALTERNATE CONTACT 416-996-5523
				ALTERNATE TELEPHONE Ext 5088
REPORT LINE USE ONLY				
<b>N</b>	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT
				REPORT LINE NUMBER (867) 920-8130
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> LA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			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				

PAGE 1 OF 1

Figure 2 – NT-NU Spill report 17-088



April 24, 2017

Resource Management Officer  
Nunavut Field Operations  
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Box 100  
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Director, Major Projects  
Qikiqtani Inuit Association  
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**Re: Follow-up to Spill #17-092, Reported on March 25, 2017**  
**Mary River Project - Water Licence No. 2AM-MRY1325**

**Summary:**

At 03:45 HRS on March 25 an operator was loading sump water totes from the maintenance shop onto the stake truck to deliver the contaminated water tote to the Mine Site Hazardous Waste Berm (MS-HWB-7). While removing the forks the operator noticed structural damage to the tote. The operator then attempted to lower the tote to the ground. At this time it tipped over releasing approx. 400 L of contaminated water to the surrounding camp pad and access road, contaminating an area of approximately 300 m<sup>2</sup>. The location of the spill was confined to the maintenance shop pad and access road, occurred on IOL, and is greater than 200 metres from the closest water body which is currently frozen

**Immediate and Follow-Up Action:**

A loader was used to clean up the contaminated snow which was disposed of in a lined engineered containment facility.

**Recommendations:**

Ensure that operators are inspecting totes for structural stability before handling or preparing them for transport. A spotter should be used when possible to ensure safe handling of totes.

**Current Status:**

The contaminated snow has been cleaned up and disposed of in a lined engineered containment facility. The contaminated snow will be treated using the oily water treatment facility during the open water season.

Should you require further information or clarification on the above noted spill, please feel free to contact William Bowden or Laura Taylor at (647) 253-0596 x6016

Prepared By:

A handwritten signature in black ink, appearing to read "KBabin".

Katherine Babin  
Environmental Coordinator

Reviewed by:

A handwritten signature in black ink, appearing to read "Bill Bowden".

William Bowden  
Environmental Superintendent

Attach: Map, NT-NU Spill Report

cc. Todd Burlingame, Wayne McPhee, Sylvain Proulx, Robert Gagne, Eric Steinmetzer, Gordon Mudryk, Jeff Bush, Jimmy Puk (Baffinland) Stephen Bathory (QIA), Erik Allain, Sarah Forte, Jonathon Mesher (INAC)



Photo 1: Damaged tote spilled while being loaded for transport to MS-HWB-7



Photo 2: Affected area after cleanup and snow removal



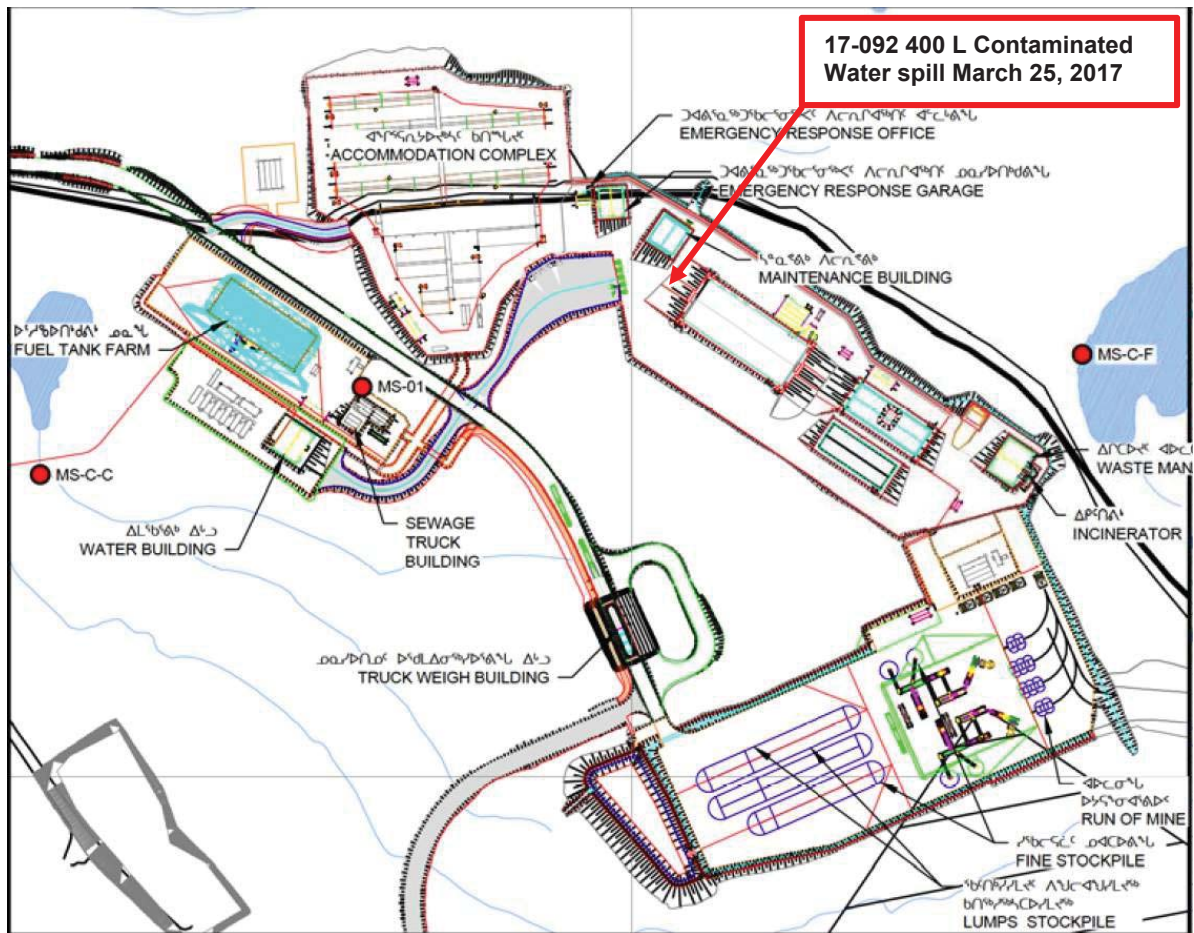


Figure 1 – Map of spill location



Canada

**NT-NU SPILL REPORT**

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spill@govt.nt.ca

REPORT LINE USE ONLY

<b>A</b>	REPORT DATE: MONTH – DAY – YEAR <b>03-25-2017</b>	REPORT TIME <b>19:00 HRS</b>	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # TO THE ORIGINAL SPILL REPORT	REPORT NUMBER <b>17-092</b>
<b>B</b>	OCCURRENCE DATE: MONTH – DAY – YEAR <b>03-25-2017</b>	OCCURRENCE TIME <b>03:45 HRS</b>		
<b>C</b>	LAND USE PERMIT NUMBER (IF APPLICABLE) <b>IOL - Commercial Lease: Q13C301</b>	WATER LICENCE NUMBER (IF APPLICABLE) <b>2AM-MRY1325 Type "A"</b>		
<b>D</b>	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION <b>Mary River Mine Site, Baffin Island, NU</b>	REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
<b>E</b>	LATITUDE DEGREES <b>71</b> MINUTES <b>18</b> SECONDS <b>50</b>	LONGITUDE DEGREES <b>79</b> MINUTES <b>16</b> SECONDS <b>44</b>		
<b>F</b>	RESPONSIBLE PARTY OR VESSEL NAME <b>Baffinland Iron Mines Corp.</b>	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION <b>2275 Middle Road East, Suite 300, Oakville, ON L6H 0C3</b>		
<b>G</b>	ANY CONTRACTOR INVOLVED <b>N/A</b>	CONTRACTOR ADDRESS OR OFFICE LOCATION <b>N/A</b>		
<b>H</b>	PRODUCT SPILLED <b>Contaminated Water</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>Approx. 400 L</b>	U.N. NUMBER <b>N/A</b>	
	SECOND PRODUCT SPILLED (IF APPLICABLE) <b>N/A</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>N/A</b>	U.N. NUMBER <b>N/A</b>	
<b>I</b>	SPILL SOURCE <b>Maintenance sump water tote</b>	SPILL CAUSE <b>Containment failure</b>	AREA OF CONTAMINATION IN SQUARE METRES <b>Approx. 300m2</b>	
<b>J</b>	FACTORS AFFECTING SPILL OR RECOVERY <b>Frozen Conditions</b>	DESCRIBE ANY ASSISTANCE REQUIRED <b>Heavy equipment</b>	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT <b>N/A</b>	
<b>K</b>	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS  An operator was loading sump water totes from the maintenance shop onto the stake truck to deliver the contaminated water tote to the Mine Site Hazardous Waste Berm (MS-HWB-7). While removing the forks the operator noticed structural damage to the tote. The operator then attempted to lower the tote to the ground. At this time it tipped over releasing approx. 400 L of contaminated water to the surrounding camp pad and access road. A loader was used to clean up the contaminated snow which was disposed of in a lined engineered containment facility. The location of the spill was confined to the maintenance shop pad and access road, occurred on IOL, and is greater than 500m from the closest water body which is currently frozen. The investigation is ongoing and further details of the incident will be provided in the follow-up report. This spill is being reported as required by the conditions of water license no. 2AM-MRY1325, Part H, item 9 (b) as per subsection 12(3) of the Nunavut Waters and Nunavut Surface Rights Tribunal Act.			
<b>L</b>	REPORTED TO SPILL LINE BY <b>William Bowden</b>	POSITION <b>Env. Superintendent</b>	EMPLOYER <b>Baffinland</b>	LOCATION CALLING FROM <b>647-253-0596</b>
<b>M</b>	ANY ALTERNATE CONTACT <b>Wayne McPhee</b>	POSITION <b>Dir. Sust Development</b>	EMPLOYER <b>Baffinland</b>	ALTERNATE CONTACT <b>416-996-5523</b>
REPORT LINE USE ONLY				
<b>N</b>	RECEIVED AT SPILL LINE BY <b>STATION OPERATOR</b>	POSITION <b>STATION OPERATOR</b>	EMPLOYER <b>YELLOWKNIFE, NT</b>	REPORT LINE NUMBER <b>(867) 920-8130</b>
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> LA <input type="checkbox"/> IAC <input type="checkbox"/> NEB <input type="checkbox"/> TC		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				

PAGE 1 OF 1

Figure 2 – NT-NU Spill report 17-092



May 4<sup>th</sup>, 2017

Resource Management Officer  
Nunavut Field Operations  
Indigenous and Northern Affairs Canada  
Box 100  
Iqaluit, NU X0A 0H0  
Justin.Hack@aandc-aadnc.gc.ca

Director, Major Projects  
Qikiqtani Inuit Association  
P.O. Box 219  
Iqaluit, NU X0A 0H0

**Re: Follow-up to Spill #17-105, Reported on April 5<sup>th</sup>, 2017**  
**Mary River Project - Water Licence No. 2AM-MRY1325**

**Summary:**

At 10:30 HRS on April 5<sup>th</sup>, night shift superintendent notified environmental personnel that a loaded Ore Haul Truck had driven off the tote road while heading north bound. It was observed that the fuel tank was not punctured but was slowly over topping causing fuel to leak out as the truck was situated on an angle. Operators responded immediately by placing spill pads and a duck pond to collect the diesel being released. Approximately 100 L of fuel was released to the adjacent ground, impacting an area of less than 1m<sup>2</sup>. The location of the spill was confined to the side of the Tote Road at Km 54, and is greater than 50 meters from the closest water body which is currently frozen.

**Immediate and Follow-Up Action:**

A loader was used to remove the contaminated snow which was disposed of in a lined engineered containment facility.

**Recommendations:**

Preventative maintenance inspection programs on Ore Haul trucks are continuing to be implemented to reduce operational breakdowns and resultant spills.

**Current Status:**

The contaminated snow has been cleaned up and disposed of in a lined engineered containment facility. The contaminated snow will be treated using the oily water treatment facility during the open water season.

Should you require further information or clarification on the above noted spill, please feel free to contact William Bowden or Laura Taylor at (647) 253-0596 x6016

Prepared By:

A handwritten signature in black ink, appearing to read "Connor Devereaux".

Connor Devereaux  
Environmental Coordinator

Reviewed by:

Laura Taylor  
Environmental Superintendent

Attach: Map, NT-NU Spill Report

cc. Todd Burlingame, Wayne McPhee, Sylvain Proulx, Eric Steinmetzer, Lyle Hemmerling, JP Provencher (Baffinland) Stephen Bathory (QIA), Erik Allain, Sarah Forte, Jonathon Mesher (INAC)





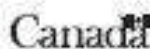
Photo 1: Ore Haul Truck off Tote Road at Km 54



Photo 2: Ore Haul Truck before extraction at Km 54 of Tote Road



Figure 1 – Map of spill location



# NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6824

EMAIL: spill@gnwv.nt.ca

REPORT LINE USE ONLY

<b>A</b>	REPORT DATE: MONTH - DAY - YEAR <b>04-05-2017</b>	REPORT TIME <b>10:30</b>	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER <b>17-105</b>
<b>B</b>	OCCURRENCE DATE: MONTH - DAY - YEAR <b>04-05-2017</b>	OCCURRENCE TIME <b>9:00</b>		
<b>C</b>	LAND USE PERMIT NUMBER (IF APPLICABLE) <b>IOL - Commercial Lease: Q13C301</b>	WATER LICENSE NUMBER (IF APPLICABLE) <b>2AM-MRY1325 Type "A"</b>		
<b>D</b>	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION <b>Mary River Mine Site, Baffin Island, NU</b>	REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
<b>E</b>	LATITUDE DEGREES <b>71</b> MINUTES <b>30</b> SECONDS <b>57</b>	LONGITUDE DEGREES <b>80</b> MINUTES <b>14</b> SECONDS <b>56</b>		
<b>F</b>	RESPONSIBLE PARTY OR VESSEL NAME <b>Baffinland Iron Mines Corp.</b>	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION <b>2275 Middle Road East, Suite 300, Oakville, ON L6H 0C3</b>		
<b>G</b>	ANY CONTRACTOR INVOLVED <b>N/A</b>	CONTRACTOR ADDRESS OR OFFICE LOCATION <b>N/A</b>		
<b>H</b>	PRODUCT SPILLED <b>Diesel Fuel</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>Approx. 100 Litres</b>	U.N. NUMBER <b>N/A</b>	
	SECOND PRODUCT SPILLED (IF APPLICABLE) <b>N/A</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>N/A</b>	U.N. NUMBER <b>N/A</b>	
<b>I</b>	SPILL SOURCE <b>Ore Handling Truck</b>	SPILL CAUSE <b>OHT drove off the road</b>	AREA OF CONTAMINATION IN SQUARE METRES <b>1m2</b>	
<b>J</b>	FACTORS AFFECTING SPILL OR RECOVERY <b>Loaded OHT on side in snow</b>	DESCRIBE ANY ASSISTANCE REQUIRED <b>N/A</b>	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT <b>N/A</b>	
<b>K</b>	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS  <b>At 10:30 HRS on April 5th, a mine supervisor advised environmental that a loaded OHT had driven off the tote road while heading north and was leaking fuel. It was observed that the fuel tank was not punctured but was slowly over topping as the truck was on its side. The workers responded immediately by placing spill pads and duck pond to collect the diesel. Approx. 100 L of fuel spilled, impacting an area of less than 1m2. Once the truck is removed, the area will be cleaned up by removing all contamination and transferring to the land farm at Mine Port Site. The location of the spill was confined to the west side of the tote rd at Km 54, and is greater than 50 meters from the closest water body which is currently frozen. The investigation is ongoing and further details of the incident will be provided in the follow-up report. This spill is being reported as required by the conditions of water license no. 2AM-MRY1325, Part H, item 9 (b) pursuant to subsection 12(3) of the Nunavut Waters and Nunavut Surface Rights Tribunal Act.</b>			
<b>L</b>	REPORTED TO SPILL LINE BY <b>Laura Taylor</b>	POSITION <b>Env. Superintendent</b>	EMPLOYER <b>Baffinland</b>	LOCATION CALLING FROM <b>647-253-0596</b>
<b>M</b>	ANY ALTERNATE CONTACT <b>Wayne McPhee</b>	POSITION <b>Dir. Sust Development</b>	EMPLOYER <b>Baffinland</b>	ALTERNATE CONTACT LOCATION <b>Off Site</b>
REPORT LINE USE ONLY				
<b>N</b>	RECEIVED AT SPILL LINE BY <b>STATION OPERATOR</b>	POSITION <b>STATION OPERATOR</b>	EMPLOYER <b>YELLOWKNIFE, NT</b>	REPORT LINE NUMBER <b>(867) 920-8130</b>
LEAD AGENCY <input type="checkbox"/> DND <input type="checkbox"/> DCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NER <input type="checkbox"/> CTC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN	
AGENCY			FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED	
CONTACT NAME		REMARKS		
CONTACT TIME				
LEAD AGENCY				
FIRST SUPPORT AGENCY				
SECOND SUPPORT AGENCY				
THIRD SUPPORT AGENCY				

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Figure 2 – NT-NU Spill report 17-105





September 2, 2017

Justin Hack, Resource Management Officer  
Nunavut Field Operations  
Iqaluit Office  
Indigenous Affairs and Northern Development Canada  
Box 100  
Iqaluit, NU X0A 0H0

Curtis Didham, Enforcement Officer  
David MacDonald, Enforcement Officer  
Environment and Climate Change  
Canada  
933 Mivvik Street  
Iqaluit, NU X0A 0H0

**RE: Update on Status, Actions Taken and Planned Corrective Actions for Waste Rock Stockpile Facility  
Type A Water Licence 2AM-MRY1325 – Amend. No. 1**

The purpose of this letter is to provide an update on the status of Mary River Project Mine Site Waste Rock Stockpile (Waste Rock Stockpile) and associated water management infrastructure. Included is an outline of actions taken to date to address previously identified concerns regarding the Waste Rock Stockpile Sedimentation Pond (Sedimentation Pond) and additional planned actions to be taken to address outstanding concerns.

**Background**

On August 16, 2017, Baffinland notified regulators and stakeholders that the water quality of surface water runoff originating from the Waste Rock Stockpile is not meeting discharge requirements and there was limited remaining capacity in the Sedimentation Pond.

**Update**

Subsequent to the notifying regulators and stakeholders, Baffinland was able to successfully batch treat the water contained in the Sedimentation Pond using soda ash and installed sedimentation mitigation measures. Controlled discharges from the treated Sedimentation Pond to the receiving environment have occurred since the treatment and will continue, as required, up until freeze up. Available water quality monitoring data indicate discharges met all applicable discharge criteria under the Type A Water Licence and Metal Mining Effluent Regulations (MMER), with the exception of total suspended solids. Compliance with applicable discharge criteria is confirmed upon receiving all water quality monitoring data from 3<sup>rd</sup> Party laboratories.

On August 23, 2017 during an inspection of the Mine Site Waste Rock Stockpile Sedimentation Pond with Environment and Climate Change Canada (ECCC) and Indigenous and Northern Affairs Canada (INAC), seepage was observed originating from the central toe of the Sedimentation Pond in approximately four (4) discrete but closely clustered locations. It is uncertain at this time as to the exact cause of the observed flows however initial inspections indicate that surface water runoff is potentially infiltrating below the liner inlet key in. An emergency containment ditch was completed shortly after on August 25, 2017 to contain the observed seepage.

The following paragraphs outline Baffinland's action plan to evaluate and stop the seepage from the toe of the Sedimentation Pond.

#### Action Plan

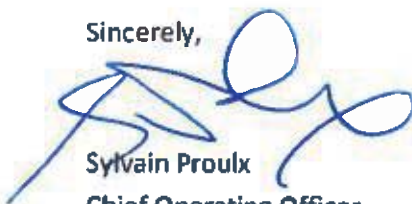
The pond design and field engineering during construction was completed by Hatch. Baffinland has contacted Hatch for their support and expertise for addressing this serious issue. Hatch has committed to sending a field engineer team to site to determine the root cause and develop a short term action plan to stop the seepage. The field engineer team's assessment is scheduled to commence on September 1, 2017. Baffinland has scheduled personnel and equipment from Sept 6, 2017 forward to conduct the earthworks required to execute Hatch's short term action plan.

If the investigation led by the field engineer team results in a short term solution that cannot be implemented before freeze-up, an interim solution will be put in place. The interim solution will ensure seepage is conveyed to the downstream emergency collection ditch, and will include a sump(s) that will be directed back to the pond up until freeze-up, if water quality is non-compliant with applicable discharge criteria. This interim solution will collect the observed seepage from Sedimentation Pond until Hatch's short term action plan can be implemented in 2018.

The upstream area of the pond, including the east collection ditch and pond liner key in will be re-graded regardless of whether Hatch's short term action plan can be implemented before freeze up. This will prevent water from pooling on the inlet of liner. The lack of proper grading is seen by Baffinland to be a major issue and will be resolved prior to freeze up.

In parallel, a long term plan is in development that involves expanding the Waste Rock Stockpile Facility and associated surface water management infrastructure, including the sedimentation pond, in 2018. The expansion would improve the surface water management infrastructure associated with the Mine Site Waste Rock Stockpile and incorporate additional water management contingency into the design. The expansion will be submitted to the Nunavut Water Board and appropriate agencies for approval in late 2017. Implementation of the expansion would not commence until all necessary approvals are received.

Sincerely,



Sylvain Proulx  
Chief Operating Officer

T: +1 416 364 8820 x6091

C: +1 416 970 6983

Cc: Stephen Williamson Bathory (Qikiqtani Inuit Association)  
David Hohnstein, Sean Joseph (NWB)  
Solomon Amuno (NIRB)  
David MacDonald (ECCC)  
Jonathan Mesher, Sarah Forté, Karen Costello (INAC)  
Todd Burlingame, Adam Grzegorzczak, Wayne McPhee, William Bowden, Andrew Vermeer, Laura Taylor, Allan Knight (Baffinland)