



Attachment 1

Photos

MP-C-B Freshet Site



Photo 1: MP-C-B Freshet Site Upstream with ESC (Spring Berm) Installed on May 22, 2024



**Photo 2: MP-C-B Freshet Monitoring Site with ESC (Spring Berm and Floc Blocs)
Installed on May 26, 2024**



Photo 3: MP-C-B Freshet Monitoring Site with ESC (Additional Spring Berm) Installed on May 29, 2024



Photo 4: MP-C-B Freshet Monitoring Site with ESC (Reinforced Spring Berm) on May 30, 2024



Photo 5: MP-C-B Freshet Monitoring Site with ESC (Sandbags) Installed on June 1, 2024



Photo 6: MP-C-B Freshet Monitoring Site Upstream on June 2, 2024



Photo 7: MP-C-B Freshet Monitoring Site Downstream on June 2, 2024



Photo 8: MP-C-B Freshet Monitoring Site on June 12, 2024

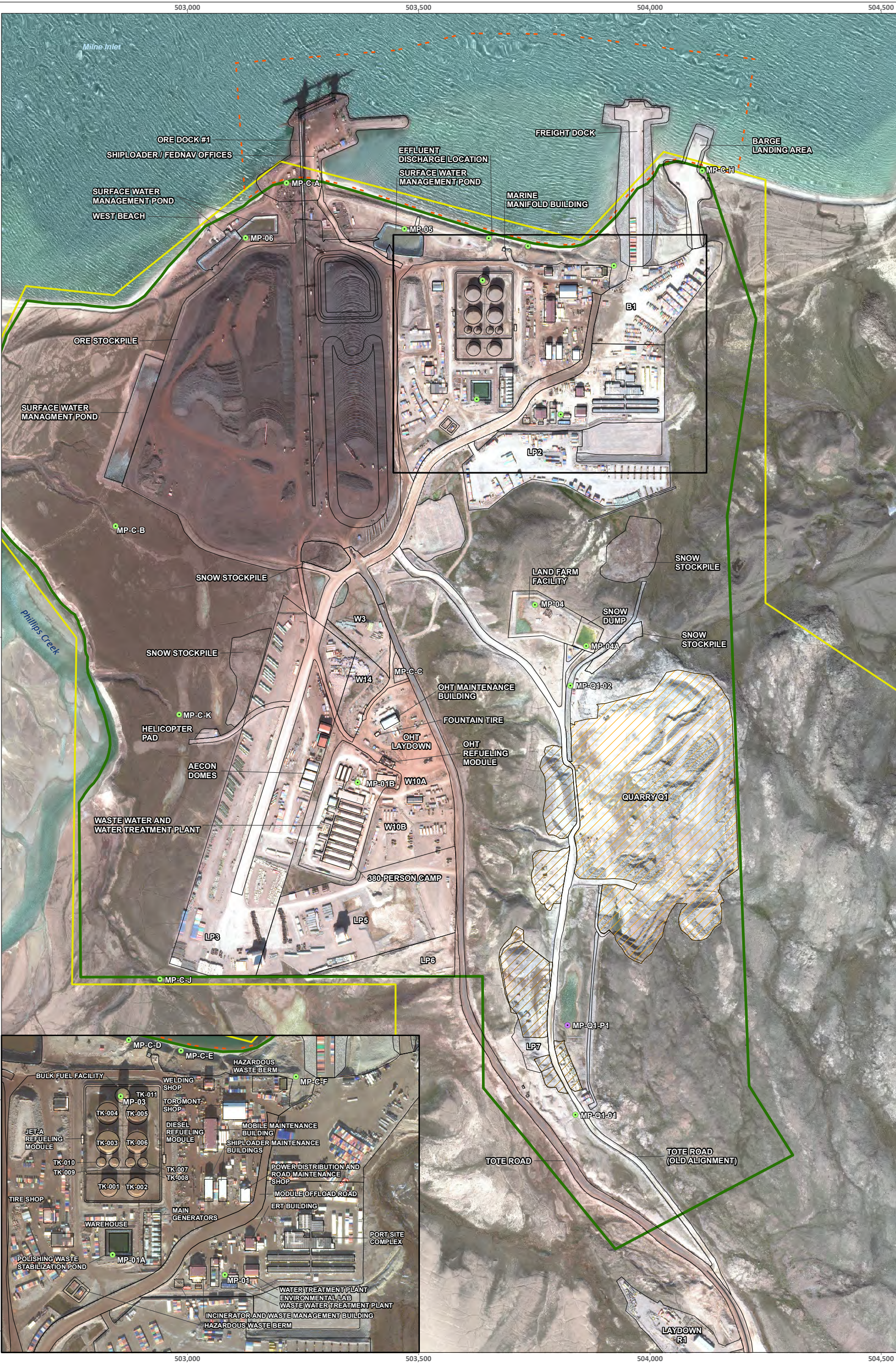


Photo 9: MP-C-B Freshet Monitoring Site Downstream on June 12, 2024



Attachment 2
Freshet Monitoring Program Location

SAVED: C:\Users\katie.mcgill\Documents\1 - AnnualType A\2022\BML_Fig 3 MilnePort 2022 Monitoring.mxd, 23-Mar-23



LEGEND

- Foreshore Lease Boundary
- Project Development Area
- Commercial Lease Boundary
- Borrow Area
- Quarry Area
- Infrastructure
- Domestic and Industrial Water Sources
- SNP Monitoring Location**
- Active
- Inactive
- Monitoring Location**
- Recycled Water Monitoring
- Snow Stockpile Monitoring
- Tote Road Monitoring

MARY RIVER PROJECT

Milne Port Site Layout

Projection: NAD 1983 UTM ZONE 17N.
Base Map: © 2023 Digital Globe, Inc.
Imagery and Infrastructure are representative as of July 2022.

0 25 50 100 150 200 Meters
Scale 1:8,000

Baffinland

FIGURE 3



Attachment 3
Baffinland NT-NU Spill Report #2024-199



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) 873-6024

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH - DAY - YEAR	REPORT TIME	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # TO THE ORIGINAL SPILL REPORT	REPORT NUMBER 24 199	
	05-30-2024	05:30			
B	OCCURRENCE DATE: MONTH - DAY - YEAR	OCCURRENCE TIME			
	05-26-2024	16:45			
C	LAND USE PERMIT NUMBER (IF APPLICABLE)	WATER LICENCE NUMBER (IF APPLICABLE)			
	IOL - Commercial Lease No.: Q13C301	2AM-MRY1325 Type "A"			
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION	REGION			
	Mary River Project Mine Site, Baffin Island, NU	<input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN			
E	LATITUDE	LONGITUDE			
	DEGREES 71 MINUTES 52 SECONDS 54	DEGREES -80 MINUTES 55 SECONDS 06			
F	RESPONSIBLE PARTY OR VESSEL NAME	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION			
	Baffinland Iron Mines Corp.	360 Oakville Place Drive Suite 300, Oakville, ON L6H 6K8			
G	ANY CONTRACTOR INVOLVED	CONTRACTOR ADDRESS OR OFFICE LOCATION			
	N/A	N/A			
H	PRODUCT SPILLED	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES	U.N. NUMBER		
	Sediment-laden water	Unquantified	N/A		
	SECOND PRODUCT SPILLED (IF APPLICABLE)	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES	U.N. NUMBER		
	N/A	N/A	N/A		
I	SPILL SOURCE	SPILL CAUSE	AREA OF CONTAMINATION IN SQUARE METRES		
	Melting snow, overland flow	Rapid melt	N/A		
J	FACTORS AFFECTING SPILL OR RECOVERY	DESCRIBE ANY ASSISTANCE REQUIRED	HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT		
	Frozen conditions, high flow	N/A	N/A		
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS				
	<p>On May 29, Baffinland received laboratory results showing water at Freshet Monitoring Program sampling location MP-C-B to be above the applicable criteria for Total Suspended Sediments (TSS). In accordance with the Surface Water Aquatic Effects Management Plan, sedimentation mitigations including coir logs and spring berms were implemented to settle sediments prior to entering the receiving environment. With freshet conditions present, monitoring of the water quality is ongoing. This exceedance 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 and as required by subsection 38(5) of the Fisheries Act.</p>				
L	REPORTED TO SPILL LINE BY	POSITION	EMPLOYER	LOCATION CALLING FROM	TELEPHONE
	Todd Swenson	Env. Superintendent	Baffinland Iron Mine	Baffinland	Ext. 6016
M	ANY ALTERNATE CONTACT	POSITION	EMPLOYER	ALTERNATE CONTACT	ALTERNATE TELEPHONE
	Katie Babin	Env. Superintendent	Baffinland	Baffinland	Ext. 6016
REPORT LINE USE ONLY					
N	RECEIVED AT SPILL LINE BY	POSITION	EMPLOYER	LOCATION CALLED	REPORT LINE NUMBER
		STATION OPERATOR		YELLOWKNIFE, NT	(867) 920-6130
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"/> NAC <input type="checkbox"/> IEB <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					



June 27, 2024

Resource Management Officer
Nunavut Region
Crown Indigenous Relations and Northern Affairs Canada
Box 100
Iqaluit, NU X0A 0H0

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

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

Re: Follow-Up to Spill #2024-193
Mary River Project - Water Licence No. 2AM-MRY1325

Summary:

On May 27, 2024, seepage was observed entering the crusher pad perimeter ditch through the embankment berm at the northeast corner of the Crusher Facility and releasing onto the tundra. The embankment berm was installed in 2020 to capture contact water runoff and isolate the perimeter ditch from Crusher Facility water management infrastructure following the identification of integrity issues with the perimeter ditch network in 2020. Water management at the Crusher Facility has subsequently involved the use of active pumping of contact water from the pad directly to the MS-06 Pond. In preparation for freshet 2024, actions were implemented, including additional embankment berm maintenance and drainage improvements, to prevent runoff water from entering the perimeter ditch. Upon completion of the plan, water was successfully diverted directly to the MS-06 Pond when thawing conditions occurred, as planned, via a temporary sump and pumping system. However, some water entered the perimeter ditch beneath the embankment berm in a localized area and was subsequently released onto the tundra.

Initial field readings of the seepage indicated elevated levels of Total Suspended Solids (TSS) in exceedance of the applicable water license (15 mg/L) and MDMER (30 mg/L) criteria. Subsequent water quality samples collected to characterize the water quality of the seepage were submitted to an external laboratory for analysis. Results of toxicity samples received on June 7 showed that the seepage water was not acutely lethal. The incident occurred on IOL located greater than 1km from Sheardown Lake tributary, the nearest fish bearing waters. A figure showing the seepage location and photos of the incident are provided in Attachment 1 and Attachment 2, respectively. The seepage was reported to the NT-NU Spill Reporting Line on May 28, 2024. The NT-NU Spill Report (#2024-193) is included as Attachment 3.

Immediate and Follow-Up Action:

Results of the seepage water quality sample collected on May 27 were compliant with all analyzed parameters, including acute lethality, with the exception of TSS which measured 16 mg/L; below applicable MDMER criteria (30 mg/L) but marginally above the water licence criteria (15 mg/L). Results of the May 27 toxicity sample and of an additional toxicity sample collected on May 28 were found to be not acutely toxic. In addition, results of a sample collected downstream of the Crusher Facility at Surveillance Network Program (SNP) monitoring station MS-C-E on May 30, 2024, were compliant with all applicable water licence criteria.



Snow in the vicinity of Crusher Facility drainage infrastructure was removed to reduce the presence of melting water in the area. Water inputs were contained at the Crusher Facility through the construction of a berm and subsequently transferred by pump directly to the MS-06 Pond, in accordance with Baffinland's MDMER Emergency Response Plan (BAF-PH1-830-P16-0047). The embankment berm was repaired, re-isolating the perimeter ditch from additional water inputs and preventing further seepage to the tundra.

Recommendations:

Regular inspections for water management in the area will continue to be completed to ensure corrective actions remain effective, and that all water reports to the MS-06 Pond as designed. Further corrective actions are planned and include the following:

1. Relocation in winter 2024/2025 of designated snow stockpile area(s) to minimize the presence of melting water reporting to Crusher Facility drainage infrastructure.
2. Annual maintenance and inspections for diversion berm

Current Status:

Water management strategies continue to be used to transfer water from the Crusher Facility area directly to the MS-06 Pond as necessary. Continued inspections have observed no standing water and confirmed that water flows are reporting to the MS-06 Pond, as designed. The embankment berm constructed to maintain isolation of the perimeter ditch was repaired. Long-term water management measures for the Crusher Facility are being addressed as part of the ongoing implementation of Baffinland's Long Term Water Management Plan.

As per Section 31 of the Metal and Diamond Mining Effluent Regulations (MDMER):

- a. Seepage from the Crusher Facility pad.
- b. Unknown quantity.
- c. The release occurred at approximately 15:00 on May 27, 2024.
- d. The quantity of seepage water released is unknown; therefore, the quantity of deleterious substances cannot be determined. The location of the release is shown in Attachment 1.
- e. Not applicable as the release did not occur through the final discharge point (FDP).
- f. The incident occurred on IOL located >1km from Sheardown Lake tributary, the nearest fish bearing waters, and did not migrate from the vicinity of the release.
- g. Acute toxicity samples collected from the seepage on May 27 and May 28 indicated the seepage water was not acutely lethal.
- h. See the summary above for the circumstances of the seepage release. As per Baffinland's MDMER Emergency Response Plan, seepage water was contained through the construction of a berm to allow for the seepage to be pumped to the MS-06 Pond.
- i. Ground works were completed to ensure all contact water reports to the MS-06 Pond. Inspections of the Crusher Facility continue on a regular basis and no further releases have been observed.

Should you require further information or clarification on the incident described above, please feel free to contact the undersigned at (647) 253-0596 (ext. 6716).



Prepared by:

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

Todd Swenson
Environmental Superintendent

Reviewed by:

Joe Armstrong

Digitally signed by Joe
Armstrong
Date: 2024.06.27 17:02:22
-04'00'

Joe Armstrong
Crushing & Transportation Manager

Cc: Jeremy Fraser, Sean Noble-Nowdluk (CIRNAC)
Andrew Jaworenko, Amoudla Kootoo (QIA)
Curtis Didham (ECCC)
Tim Sewell, Megan Lord-Hoyle, Lou Kamermans, Francois Gaudreau, Martin Beausejour, Joe
Armstrong, Marc Tremblay, Connor Devereaux, Jared Nadin, Katie Babin, Allison Parker, Dale
Kristoff, Irniq Lecompte (Baffinland)

Attachments

Attachment 1: Spill Location Map

Attachment 2: Photos

Attachment 3: Baffinland NT-NU Spill Report #2024-193





Attachment 1

Spill Location Map

SAVED: C:\Users\David.Bruce\Documents\GIS\Data\24 05 27 Crusher Pad Seep.qgz



Attachment 2



Photos



Photo 1: Crusher Seepage Location - May 27, 2024



Photo 2: Crusher Seepage onto Tundra - May 28, 2024



Photo 3: Embankment Berm Where Seepage Entered Perimeter Ditch – May 27, 2024



Photo 4: Reinforced Embankment Berm to Ensure Water Flows to MS-06 - June 24, 2024



Attachment 3

Baffinland NT-NU Spill Report #2024-193



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) 873-8924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH - DAY - YEAR 05-28-2024	REPORT TIME 15:00	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # TO THE ORIGINAL SPILL REPORT	REPORT NUMBER 24
B	OCCURRENCE DATE: MONTH - DAY - YEAR 05-27-2024	OCCURRENCE TIME 15:00		
C	LAND USE PERMIT NUMBER (IF APPLICABLE) IOL - Commercial Lease: Q13C301	WATER LICENSE NUMBER (IF APPLICABLE) 2AM-MRY1325 Type "A"		
D	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		
E	LATITUDE DEGREES 71 MINUTES 18 SECONDS 36	LONGITUDE DEGREES 79 MINUTES 16 SECONDS 5		
F	RESPONSIBLE PARTY OR VESSEL NAME Baffinland Iron Mines Corp.	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION 360 Oakville Place Drive, Suite 300, Oakville, ON L6H 6K8		
G	ANY CONTRACTOR INVOLVED N/A	CONTRACTOR ADDRESS OR OFFICE LOCATION N/A		
H	PRODUCT SPILLED Sediment Laden Water	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES unquantified	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	
I	SPILL SOURCE Crusher Ditch	SPILL CAUSE Seepage	AREA OF CONTAMINATION IN SQUARE METRES N/A	
J	FACTORS AFFECTING SPILL OR RECOVERY Drainage to tundra	DESCRIBE ANY ASSISTANCE REQUIRED N/A	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT N/A	
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS On May 27th, 2024 at approximately 15:00, personnel completing an inspection of the Crusher Facility perimeter ditch observed seepage from the crusher pad ditch to the receiving environment. Additional visual inspections by the Environment Department confirmed water to be seeping from the perimeter ditch under the embankment at the northeast corner of the Crusher Pond facility and out onto the tundra. Monitoring was actioned and initial field readings of the release indicate elevated levels of TSS. The ditch at the location of the seep was isolated from additional water inputs and contact water is being pumped to the drainage berm that is captured by the Crusher Sedimentation Pond (MS-06). The investigation is ongoing and further information will be provided in the follow up report. This release is being reported as required by the conditions of water license no. 2AM-MRY1325, Part H, item 9(b) and section 31 of the Metal and Diamond Mining Effluent Regulations under the Fisheries Act.			
L	REPORTED TO SPILL LINE BY Todd Swenson	POSITION Env. Superintendent	EMPLOYER Baffinland	LOCATION CALLING FROM 647-253-0596
M	ANY ALTERNATE CONTACT Katie Babin	POSITION Env. Superintendent	EMPLOYER Baffinland	ALTERNATE CONTACT 647-253-0596
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"/> LA <input type="checkbox"/> NAC <input type="checkbox"/> WEB <input type="checkbox"/> IC		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				



July 24, 2024

Resources Management Officer
Nunavut Region
Crown Indigenous Relations and Northern Affairs Canada
Box 100
Iqaluit, NU X0A 0H0

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

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

Re: Follow-up to Spill #2024-239 Mary River Project - Water Licence No. 2AM-MRY1325

Summary:

On June 21st rising temperatures and rapid snowmelt resulted in the Waste Rock Facility (WRF) pond water levels to rise significantly over a short period. A controlled discharge was initiated through the Final Discharge Point (FDP) MS-08 on June 21 (Table 2). On June 23rd despite continued discharge, water levels continued to rise. Three additional pumps were added to lower the level in the pond and pumping commenced over the spillway onto frozen ground, adjacent to the WRF at 12:05 am on June 24th.

Table 1 shows the total volume of effluent discharged during this time through both the FDP and through pumping over the spill way. The volumes were calculated based on pump specifications and run times.

A full suite of samples including acute toxicity test was taken (WRF-POND-DIS-01) when discharge commenced. Results were compliant with applicable water licence and MDMER requirements, and the effluent was not acutely toxic. (Table 3). The effluent discharged was suspected to contain mostly snow melt.

Table 1: Effluent Discharged (m3) from the WRF Pond.

Date	MS-08 FDP(m ³)	Pump Over Spillway (m ³)	Combined (m3)
21-Jun-24	600.0	N/A	600.0
22-Jun-24	3500.0	N/A	3500.0
23-Jun-24	3500.0	N/A	3500.0
24-Jun-24	3000.0	10000.0	13000.0
25-Jun-24	3200.0	1500.0	4700.0
26-Jun-24	3200.0	2700.0	5900.0
27-Jun-24	3200.0	1800.0	5000.0
28-Jun-24	3200.0	3000.0	6200.0
29-Jun-24	3200.0	600.0	3800.0
30-Jun-24	4937.0	1000.0	5937.0
01-Jul-24	5147.0	N/A	5147.0
02-Jul-24	5537.0	N/A	5537.0
Total	42,221.0	20,600.0	62,821.0

Table 2: Water Quality Results from MS-08 FDP

MS-08	21-Jun	25-Jun	02-Jul
pH	6.42	6.69	7.05
TSS (mg/L)	8.3	8.0	7.7

Table 3: Water Quality Results from WRF-POND-DIS-01

WRF-POND-DIS-01	24-Jun
pH	7.46
TSS (mg/L)	6.0

Photos of the spill event and current status are provided in Attachment 1. A figure showing the location of the spill is provided in Attachment 3. The spill was reported to the NT-NU Spill Reporting Line on June 24th to the NT-NU Spill Report (#2024-239) and is included as Attachment 2.

Immediate and Follow-Up Action:

Effluent was discharged via pumping over the spill way for a total of 7 days, at which point it was confirmed that water levels had dropped sufficiently. The effluent discharged over the spill way flowed over frozen tundra into the Camp Lake watershed. Down stream samples were taken at K0-01 and L0-01 on June 25th, based on field reconnaissance that indicated the flow path of the water discharged not through the FDP (Table 4.) Results from downstream sampling locations confirm no impact to downstream environment from the over land discharge.

Table 4: Water quality results from downstream receiving environments

25-Jun-24	MS-08 DS	K0-01	I0-01
pH	7.18	7.72	6.07
TSS (mg/L)	5.0	<1.0	3.5

Current Status:

The WRF pond level is within predicted operating levels, and discharge is occurring through the FDP only.

As per Section 31 of the Metal and Diamond Mining Effluent Regulations (MDMER):

- The name, description and concentration of the deleterious substance deposited
 - Snow melt deposited outside of the FDP. Effluent was compliant with MDMER criteria
- The estimated quantity of the deposit and how the estimate was achieved;
 - 20,600 m³ was deposited outside of the FDP to frozen ground. This calculation was achieved through calculations based on pump specifications and run times.
- The day on which, and hour at which, the deposit occurred;
 - Pumping commenced at 12:05 am on June 24th and ceased on June 30th.
- The quantity of the deleterious substance that was deposited at a place other than through a final discharge point and the identification of that place, including the location by latitude and longitude and, if applicable, the civic address;
 - The deleterious substances were all below the applicable MDMER criteria listed in Schedule 4, table 2 and the location is shown in attachment 3.
- The quantity of the deleterious substance that was deposited through a final discharge point and the identification of that discharge point;

- Not applicable as the release did not occur through the final discharge point (FDP).
- f. The name of the receiving body of water, if there is a name, and the location by latitude and longitude where the deleterious substance entered the receiving body of water.
 - The discharge occurred over frozen ground and entered a Camp Lake, through AEMP monitoring station K0-01
- f. The results of the acute lethality tests conducted under subsection 31.1(1) or a statement indicating that acute lethality tests were not conducted but that notification was given under subsection 31.1(2);
 - Acute toxicity samples collected from the discharge on June 24th indicated the water was not acutely lethal.
- g. The circumstances of the deposit, the measures that were taken to mitigate the effects of the deposit and, if the emergency response plan was implemented, details concerning its implementation;
 - See the summary above for the circumstances of the seepage release. As per Baffinland's MDMER Emergency Response Plan, samples of the effluent that was not discharged through the FDP were taken to ensure the effluent was not acutely toxic and to characterize the effluent.
- h. The measures that were taken, or that are intended to be taken, to prevent any similar occurrence of an unauthorized deposit.
 - Measures to be taken to prevent a similar occurrence include evaluating the water balance and existing pump infrastructure to ensure it is fit for purpose to accommodate the freshet flow by pumping water to the approved final discharge point.

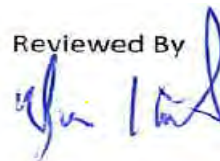
Should you require further information or clarification on the incident described above, please feel free to contact Jerad Nadin or Todd Swenson (647) 253-0596 (ext. 6016).

Prepared By



Katie Babin
Environmental Superintendent

Reviewed By



Norm Hilliard
Site Services Superintendent

Cc: Jeremy Fraser, Sean Noble-Nowdluk (CIRNAC)
Andrew Jaworenko, Amoudla Kootoo (QIA)
Curtis Didham (ECCC)
Tim Sewell, Megan Lord-Hoyle, Lou Kamermans, Francois Gaudreau, Martin Beausejour, Connor Devereaux, Jared Nadin, Katie Babin, Allison Parker, Dale Kristoff, Irniq Lecompte (Baffinland)

Attachments

Attachment 1: Photos
Attachment 2: Baffinland NT-NU Spill Report #2024-039
Attachment 3: Spill Location

Attachment 1
Photos



Photo 1: Sample port during discharge occurring through MS-08 FDP. June 21, 2024



Photo 2: Discharge occurring over spill way onto frozen ground. June 24, 2024



Photo 3: Additional pumps set up and discharging to lower water level in WRF Pond. June 24, 2024



Photo 4: Low water levels in WRF Pond. July 9, 2024

Attachment 2
NTNU Spill report 2024-239



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	REPORT TIME	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT		REPORT NUMBER 24
	06-24-2024	19:45			
B	OCCURRENCE DATE: MONTH - DAY - YEAR	OCCURRENCE TIME			
	06-24-2024	00:05			
C	LAND USE PERMIT NUMBER (IF APPLICABLE)	WATER LICENSE NUMBER (IF APPLICABLE)			
	IOL - Commercial Lease No.: Q13C301	2AM-MRY1325 Type "A"			
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION	REGION			
	Mary River Project Mine Site, Baffin Island, NU	<input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN			
E	LATITUDE		LONGITUDE		
	DEGREES 71 MINUTES 20 SECONDS 44	DEGREES -79 MINUTES 14 SECONDS 02			
F	RESPONSIBLE PARTY OR VESSEL NAME	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION			
	Baffinland Iron Mines Corp.	360 Oakville Place Dr. Suite 300, Oakville, ON, Canada, L6H6K8			
G	ANY CONTRACTOR INVOLVED	CONTRACTOR ADDRESS OR OFFICE LOCATION			
	N/A	N/A			
H	PRODUCT SPILLED	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES	U.N. NUMBER		
	Effluent	Unquantified	N/A		
H	SECOND PRODUCT SPILLED (IF APPLICABLE)	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES	U.N. NUMBER		
	N/A	N/A	N/A		
I	SPILL SOURCE	SPILL CAUSE	AREA OF CONTAMINATION IN SQUARE METRES		
	WRF, snow melt	rapid melt	N/A		
J	FACTORS AFFECTING SPILL OR RECOVERY	DESCRIBE ANY ASSISTANCE REQUIRED	HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT		
	Frozen conditions, accessibility	N/A	N/A		
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS.				
	<p>On June 21st rising temperatures and rapid melt resulted in the waste rock facility (WRF) pond water levels to rise significantly over a short period. A controlled discharge was initiated through the FDP. On June 23rd despite continued discharge, water levels continued to rise. Three additional pumps were added to lower the level in the pond and pumping commenced over the spill way onto frozen ground, adjacent to the WRF. The effluent is suspected to contain mostly snow melt, and initial field readings show pH of 7.46 and TSS results are 5.97 mg/l. A full suite of samples were collected including an acute lethality test. Seepage was also observed downstream of the WRF pond and seepage collection areas. 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 and as required by subsection 38(5) of the Fisheries Act.</p>				
L	REPORTED TO SPILL LINE BY	POSITION	EMPLOYER	LOCATION CALLING FROM	TELEPHONE
	Katie Babin	Env. Superintendent	Baffinland Iron Mine	Baffinland	Ext. 6016
M	ANY ALTERNATE CONTACT	POSITION	EMPLOYER	ALTERNATE CONTACT LOCATION	ALTERNATE TELEPHONE
	Todd Swenson	Env. Superintendent	Baffinland Iron Mine	Baffinland	Ext. 6016
N	REPORT LINE USE ONLY				
	RECEIVED AT SPILL LINE BY	POSITION	EMPLOYER	LOCATION CALLED	REPORT LINE NUMBER
		STATION OPERATOR		YELLOWKNIFE, NT	(867) 920-8130
LEAD AGENCY <input type="checkbox"/> EG <input type="checkbox"/> GCG <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					

**Attachment 3
Spill Location**



Figure 1: Discharge location of NTNU 2024-239



August 11, 2024

Resource Management Officer
Nunavut Region
Crown Indigenous Relations and Northern Affairs Canada
Box 100
Iqaluit, NU X0A 0H0

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

Re: Follow-up to Spill #2024-266

Mary River Project - Water Licence No. 2AM-MRY1325

Summary:

On July 11, 2024, a hydraulic hose on a K992 loader failed during routine operations, resulting in a release of approximately 280 liters of hydraulic fluid onto the ore pad within the Crusher Facility, near Crusher B. The impacted area was estimated to be approximately 20 m². An investigation of the hydraulic hose indicated that a hose fitting was the main component failure resulting in the release. The hose fitting failed as a result of stress from contact with another hose. The incident occurred on IOL located greater than 500 m from Sheardown Lake tributary, the nearest fish bearing waters. A figure showing the spill location and photos of the incident are provided in Attachment 1 and Attachment 2, respectively. The spill was reported to the NT-NU Spill Reporting Line on July 12, 2024. The NT-NU Spill Report (#2024-266) is included as Attachment 3.

Immediate and Follow-Up Action:

The loader was immediately shutdown and absorbent pads were placed on the impacted area. A small berm was constructed to ensure the hydraulic oil remained contained to the immediate area of release. Impacted material was excavated using a skid steer and loader, and subsequently disposed of as per Baffinland's Hazardous Materials and Hazardous Waste Management Plan.

The investigation into the incident included a review of preventative maintenance (PM) and pre-operational documentation. Pre-operational documents did not identify any leaks, and the 1000-hour preventative maintenance previously completed did not identify a leaking hose or any damage to the hydraulic hose fitting.

The failed hydraulic hose was replaced, and positioned to ensure no risk of stress contact with other hoses or components. A post installation inspection was completed to verify hydraulic hose condition and ensure quality control of hose routing and separation.

Recommendations:

Pre-release procedures for visible leaks/damage and hose routing will be reviewed and updated. A review of PM check sheets to better identify all housing condition, routing, and/or protection where necessary is in progress.

The area has been cleaned up and impacted material has been removed. The hydraulic hose was replaced with appropriate hose routing and separation to eliminate internal forces from being applied to the hose in the future.



Should you require further information or clarification on the incident described above, please feel free to contact the undersigned at (647) 253-0596 ext. 6016.

Prepared by:

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

Todd Swenson
Environmental Superintendent
Superintendent

Reviewed by:

Joe Armstrong

Digitally signed by Joe Armstrong
Date: 2024.08.11 10:42:53 -04'00'

Joe Armstrong,
Crushing and Transportation Manager

Cc: Jeremy Fraser, Sean Noble-Nowdluk (CIRNAC)
Andrew Jaworenko, Amoudla Kootoo (QIA)

Tim Sewell, Megan Lord-Hoyle, Lou Kamermans, Francois Gaudreau, Martin Beausejour, Joe Armstrong, Marc Tremblay, Connor Devereaux, Jared Nadin, Katie Babin, Allison Parker, Dale Kristoff, Irniq Lecompte (Baffinland)

Attachments:

Attachment 1: Spill Location Map

Attachment 2: Photos

Attachment 3: NT-NU Spill Notification

360 Oakville Place Drive, Suite 300 | Oakville, ON, Canada L6H 6K8

Main: 416.364.8820 | Fax: 416.364.0193 | www.baffinland.com



Attachment 1: Spill Location

360 Oakville Place Drive, Suite 300 | Oakville, ON, Canada L6H 6K8

Main: 416.364.8820 | Fax: 416.364.0193 | www.baffinland.com

SAVED: C:\Users\David.Bruce\Documents\GIS\Data\24 07 11 Crusher Pad Spill.qgz



360 Oakville Place Drive, Suite 300 | Oakville, ON, Canada L6H 6K8

Main: 416.364.8820 | Fax: 416.364.0193 | www.baffinland.com



Attachment 2: Photos

360 Oakville Place Drive, Suite 300 | Oakville, ON, Canada L6H 6K8

Main: 416.364.8820 | Fax: 416.364.0193 | www.baffinland.com



Photo 1: Release of Hydraulic Fluid on Ore Pad within the Crusher Facility on July 11



Photo 2: Absorbent Pads Placed on the Impacted Area on July 11



Photo 3: Berm Constructed to Prevent Migration of Release from Immediate Area on July 11



Photo 4: Location of Spill after Clean-up on July 11



Attachment 3: Spill Notification

360 Oakville Place Drive, Suite 300 | Oakville, ON, Canada L6H 6K8

Main: 416.364.8820 | Fax: 416.364.0193 | www.baffinland.com



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: spillis@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH - DAY - YEAR 07-12-2024	REPORT TIME 11:00	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # TO THE ORIGINAL SPILL REPORT	REPORT NUMBER 24
B	OCCURRENCE DATE: MONTH - DAY - YEAR 07-11-2024	OCCURRENCE TIME 11:18		
C	LAND USE PERMIT NUMBER (IF APPLICABLE) IOL - Commercial Lease:Q13C301	WATER LICENCE NUMBER (IF APPLICABLE) 2AM-MRY1325		
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Mary River, Baffin Island, NU	REGION <input type="checkbox"/> NWT <input type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
E	LATITUDE DEGREES 71 MINUTES 18 SECONDS 40	LONGITUDE DEGREES 79 MINUTES 16 SECONDS 31		
F	RESPONSIBLE PARTY OR VESSEL NAME Baffinland Iron Mines Corp.	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION 360 Oakville Place Dr. Suite 300, Oakville, ON, Canada, L6H6K8		
G	ANY CONTRACTOR INVOLVED N/A	CONTRACTOR ADDRESS OR OFFICE LOCATION N/A		
H	PRODUCT SPILLED Hydraulic Oil	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES 280 L	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	
I	SPILL SOURCE loader	SPILL CAUSE equipment failure	AREA OF CONTAMINATION IN SQUARE METRES 20	
J	FACTORS AFFECTING SPILL OR RECOVERY Failure of a hydraulic line	DESCRIBE ANY ASSISTANCE REQUIRED N/A	HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT N/A	
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS <p>On July 11, 2024 a hydraulic line on a K992 loader LDR035 failed, resulting in the release of transmission oil onto the ore pad near crusher B. The failed hose was immediately noticed, and the equipment instantly shut down, consequently release was limited to the immediate area. After the loader was shut down, the visibility impacted area was immediately excavated. Excavated material will be disposed of following Baffinland's Hazardous Materials and Hazardous Waste Management Plan. The quantity was confirmed through the initial stages of the incident investigation. The cause of the incident remains under investigation, and additional details will be provided in the follow-up report.</p> <p>This spill is being reported as required by the conditions of the 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 and the GN EPA paragraph 5.1(a).</p>			
L	REPORTED TO SPILL LINE BY Todd Swenson	POSITION Env. Superintendent	EMPLOYER Baffinland	LOCATION CALLING FROM 647-253-0596
M	ANY ALTERNATE CONTACT Jerad Nadin	POSITION Env. Superintendent	EMPLOYER Baffinland	ALTERNATE CONTACT 647-253-0596
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"/> NAC <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		CONTACT TIME		REMARKS
LEAD AGENCY				
FIRST SUPPORT AGENCY				
SECOND SUPPORT AGENCY				
THIRD SUPPORT AGENCY				



October 1, 2024

Resource Management Officer
Nunavut Region
Crown Indigenous Relations and Northern Affairs Canada
Box 100
Iqaluit, NU X0A 0H0

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

Re: Follow-up to Spill #2024-329
Mary River Project - Water Licence No. 2AM-MRY1325

Summary:

On August 31st, a maintenance Technician was using a skid steer to move a partially full tote of new hydraulic oil from the Toromont Dome to the Mobile Maintenance Shop when the operator noticed oil had spilled to the ground during the move.

The technician noted that the valve on the tote had opened slightly during transportation. The Technician immediately closed the valve to stop the leak and the area workers placed spill pads to contain the release. The Supervisor was immediately contacted, and the Environment department was notified. This resulted in a release of approximately 250 liters of hydraulic oil onto the ground, to an area approximately 0.5 to 1.5 meters wide by approximately 130 meters long.

Immediate and Follow-Up Action:

Following the release, spill pads were immediately placed on the ground. The spill was contained, and impacted material was excavated, and disposed of as per Baffinland's Hazardous Materials and Hazardous Waste Management Plan.

During investigation of the spill, it was identified that the Safe Work Instruction (SWI) for this task (SWI#MMSWIMH002) was not followed correctly by the Technician. Part of this safe work instruction is a check before transportation of the tote, which includes ensuring the valve is in the closed position. A review by all Maintenance crews of SWI#MMSWIMH002 has taken place.

Recommendations:

Mobile Maintenance will investigate ways to lock-out the valves before movement for inclusion in an update to procedure SWI#MMSWIMH002.

Should you require further information or clarification on the incident described above, please feel free to contact the undersigned at (647) 253-0596 ext. 6016.

Prepared by:

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

Todd Swenson
Environmental Superintendent

Reviewed by:

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

Andrew MacLeod
Mobile Maintenance Superintendent

Cc: Jeremy Fraser, Sean Noble-Nowdluk (CIRNAC)
Andrew Jaworenko, Amoudla Kootoo (QIA)
Tim Sewell, Megan Lord-Hoyle, Lou Kamermans, Francois Gaudreau, Martin Beausejour, Sangjin Yun,
Connor Devereaux, William Bowden, Katie Babin, Allison Parker, Dale Kristoff(Baffinland)

Attachments:

Attachment 1: Spill Location Map

Attachment 2: Photographs

Attachment 3: NT-NU Spill Notification

**Attachment 1
Spill Location Map**



**Attachment 2
Photographs**

Photo 1: Release of Hydraulic Oil onto ground near OHT Mobile Maintenance Shop – August 31, 2024



Photo 2: Location of spill after cleanup – August 31, 2024



Attachment 3 **Baffinland NT-NU Spill Report #2024-329**

NT-NU SPILL REPORT

**OIL, GASOLINE, CHEMICALS AND
OTHER HAZARDOUS MATERIALS**



Canada



NT-NU 24-HOUR SPILL REPORT LINE

Tel: (867) 920-8130 • Email: spills@gov.nt.ca

A	Report Date: (8) 31 24	Report Time: 2:30 pm	<input checked="" type="checkbox"/> Original Spill Report: OR <input type="checkbox"/> Update # _____ to the Original Spill Report		Report Number:
B	Occurrence Date: (8) 31 24	Occurrence Time: 8:15 am			
C	Land Use Permit Number (if applicable): ICL-Commercial Lease: Q13C301		Water License Number (if applicable): 2AM-MRY1325		
D	Geographic Place Name or Distance and Direction from the Named Location: Mary River, Baffin Island, NU		Region: <input type="checkbox"/> NT <input checked="" type="checkbox"/> Nunavut <input type="checkbox"/> Trans-boundary or Ocean		
E	Latitude: 71 Degrees 18 Minutes 49 Seconds		Longitude: 79 Degrees 16 Minutes 33 Seconds		
F	Responsible Party or Vessel Name: Baffinland Iron Mines Corp		Responsible Party Address or Office Location: 360 Oakville Place Dr., Suite 300, Oakville, ON, Canada, L6H 6K6		
G	Any Contractor Involved: N/A		Contractor Address or Office Location: N/A		
H	Product Spilled: <input checked="" type="checkbox"/> Potential Spill: Hydraulic Oil	Quantity in Litres, Kilograms or Cubic Metres: 250 L	U.N. Number: N/A		
I	Spill Source: New Oil Tote	Spill Cause: Valve Failure	Area of Contamination in Square Metres: Approx. 65		
J	Factors affecting Spill or Recovery: Valve opened upon transport	Describe Any Assistance Required: N/A	Hazards to Persons, Property or Environment: N/A		
K	<p>Summary of the spill incident and efforts / description of the incident: On August 31, 2024, a partially full tote of new hydraulic oil was being transported within the maintenance shop area. As the tote was being moved with a skid steer, the valve partially opened resulting in a release of hydraulic oil to the ground. The impacted area was approximately 0.50m wide and approximately 130m long. When the operator noticed the spill the valve was closed upon discovery and the spill did not migrate out of the immediate area. The impacted area was isolated and roped off. The impacted area was scraped with the skid steer and the material was disposed of following Baffinland's Hazardous Materials and Hazardous Waste Management.</p> <p>This spill is being reported as required by the conditions of the 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 and the GN EPA paragraph 5.1(a).</p>				
L	Reported to Spill Line by: Katie Babin	Position: Env. Superintendent	Employer: Baffinland	Location Calling From: 647-253-0596 ext 6016	Telephone:
M	Any Alternate Contact: Todd Swenson	Position: Env. Superintendent	Employer: Baffinland	Alternate Contact Location: 647-253-0596 ext 6016	Alternate Telephone:

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/TMSS <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> IIA <input type="checkbox"/> CIRNAC <input type="checkbox"/> CER <input type="checkbox"/> Other: _____				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:					



October 21, 2024

Resources Management Officer
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Crown Indigenous Relations and Northern Affairs Canada
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Iqaluit, NU X0A 0H0

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

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

Re: Follow-up to Spill #2024-366 Mary River Project - Water Licence No. 2AM-MRY1325

Summary:

The Milne Port Ore Stockpile Sedimentation Pond (East) (MP-05) on September 22, 2024 experienced an uncontrolled release of surface water stored within the water management infrastructure. The overtopping event was minor in nature and was observed to occur from September 22 08:00 to 16:00. The sedimentation pond experienced the release of water at the Northwest corner of the pond berm as well as the engineered spillway. Due to the nature of the event, the volume of surface water that overtopped MP-05 was not able to be quantified.

Prior to the event, from September 20-22, a significant rainfall event occurred, resulting in Ore Stockpile Sedimentation Pond water levels to rise significantly. The Milne Port weather station recorded 26.8 mm of rain during September 20-22. Milne Port Ore Stockpile Sedimentation Pond water levels were managed diligently in August and early September with a total of 17,013m³ being compliantly discharged to the receiving environment. The water levels within MP-05 are continually managed by pumping stored surface water to the Milne Port Ore Stockpile Sedimentation Pond (West) (MP-06) where pumping discharge infrastructure is resident. Water transfers were initiated upon the onset of the rain event and a controlled discharge was initiated on September 20 from MP-06 to manage water levels.

Additional transfer pumps were established at MP-05 on September 21 in response to continued rainfall and rising pond levels. Aggregate was placed along the toe of the down gradient berm to reinforce the berm around the Northwest corner, and sandbags were placed at the crest of the berm to mitigate the potential for an uncontrolled release. On ~08:00 September 22, surface water contained within MP-05 was observed to overtop the Northwest corner and engineered spillway. Subsequently, all available pumps were deployed to establish a controlled discharge from MP-05 directly to Milne Inlet, concurrent with the ongoing transfer of water to MP-06; eliminating further overflow from the pond at ~16:00 September 22. The controlled MP-05 discharge continued until day end when water levels had stabilised. The total volume of the controlled discharge on September 22 was 1439m³ (Table 1). Hazardous weather conditions prevailed throughout September 22 and into the following day which hindered response and monitoring initiatives. Following emergency response efforts, MP-05 water quality monitoring was completed on September 23 to characterize the release (Table 2).

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Main: 416.364.8820 | Fax: 416.364.0193 | www.baffinland.com



Table 1: Effluent Discharged via Direct Pumping from MP-05 to Milne Inlet

Pump ID #	Effluent Pumped to Milne Inlet (m ³)
1 ^A	578
2 ^A	578
3 ^B	283
Total	1,439

^A Estimated volume calculated based on pump specification and run time

^B Volume calculated from in-line totalizer

Table 2: MP-05 Water Quality Results

MP-05	2024-09-23
pH	8.18
TSS (mg/L)	5.5

Photos during and after the release are provided in Attachment 1 and a figure showing the location of the release is provided in Attachment 2. The release was reported to the NT-NU Spill Reporting Line on September 22, 2024 however monitoring results within Table 2 indicate water was compliant with applicable criteria. The NT-NU Spill Report (#2024-366) is included as Attachment 3.

Baffinland notified regulatory organizations of the unprecedented Project rainfall event (see letter from Todd Swenson to CIRNAC, DFO, QIA and ECCC dated September 22, 2024). Additional details of the Project rainfall event are included in associated follow up NT-NU spill report #2024-478.

Immediate and Follow-Up Action:

As stated earlier, transfer of water from MP-05 to MP-06 was occurring throughout August and September which managed the water levels within Milne Port Ore Stockpile Sedimentation Ponds diligently. Sandbags and aggregate were implemented to temporarily increase available storage capacity while additional pumps were deployed to increase transfer pumping capacity and initiate a controlled discharge from MP-05.

Erosion and Sediment Control (ESC) measures were assessed, in accordance with Baffinland's Surface Water Aquatic Effects Management Plan (SWAEMP). Erosion down-gradient of the Northwest corner of the pond was limited and was repaired shortly following the release. Flows from the engineered spillway caused erosion of the area down-gradient of the pond below the engineered spillway. Remediation efforts commenced and will continue to monitor this area during next open water season. Photos of the erosion and remediation are provided in Attachment 1.

Current Status:

Milne Port Ore Stockpile Sedimentation pond levels were returned to normal operating levels through increased pumping capacity and the controlled discharge was subsequently discontinued. Pumping from MP-05 to MP-06 continued throughout September and October to ensure MP-05 levels are sufficiently low in preparation for winter conditions.



Should you require further information or clarification on the incident described above, please feel free to contact William Bowden or Todd Swenson (647) 253-0596 (ext. 6016).

Prepared by:

William Bowden

William Bowden
Senior Environmental Superintendent

Reviewed by:

Marc Tremblay

Marc Tremblay
Manager, Crushing & Transportation

Cc: Jeremy Fraser, Sean Noble-Nowdluk (CIRNAC)
Andrew Jaworenko, Amoudla Kootoo (QIA)
Curtis Didham (ECCC)
Tim Sewell, Megan Lord-Hoyle, Lou Kamermans, Francois Gaudreau, Martin Beausejour, Connor Devereaux, Todd Swenson, Allison Parker, Dale Kristoff, Katie Babin (Baffinland)

Attachments:

Attachment 1: Photos
Attachment 2: Milne Port Map
Attachment 3: Baffinland NT-NU Spill Report #2024-366



Attachment 1: Photos

360 Oakville Place Drive, Suite 300 | Oakville, ON, Canada L6H 6K8

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Photo 1: MP-05 spill way showing low water levels during inspection prior to precipitation event - September 20, 2024



Photo 2: Sandbags Placed to Stop Uncontrolled Release at MP-05 Northwest Corner - September 22, 2024



Photo 3: Discharge from Engineered Spillway – September 22, 2024



Photo 4: Erosion Down-Gradient of Engineered Spillway – September 22, 2024



Photo 5: Controlled Discharge via Pumps Directly to Milne Inlet – September 22, 2024



Photo 6: MP-05 Northwest Corner following Remediation of Erosion – October 10, 2024



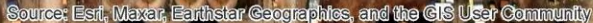
Photo 7: Low Water levels at MP-05 prior to Winter Conditions– October 10, 2024



Attachment 2: Milne Port Map

360 Oakville Place Drive, Suite 300 | Oakville, ON, Canada L6H 6K8

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- Surface Water Management Pond

MARY RIVER PROJECT

Spill #2024-366 Follow-Up Report Spill Location.

Projection: NAD 1983 UTM ZONE 17N.
Base Map: © ESRI Imagery 2024.





Attachment 3: Baffinland NT-NU Spill Report #2024-366

360 Oakville Place Drive, Suite 300 | Oakville, ON, Canada L6H 6K8

Main: 416.364.8820 | Fax: 416.364.0193 | www.baffinland.com



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

A	Report Date: 09-22-24	Report Time:	<input checked="" type="checkbox"/> Original Spill Report OR <input type="checkbox"/> Update # _____ to the Original Spill Report	Report Number:
B	Occurrence Date: 09-22-24	Occurrence Time: 8:00 am		
C	Land Use Permit Number (if applicable): IOL - Commercial Lease No.: Q13C301	Water Licence Number (if applicable): 2AM-MRY1325 Type "A"		
D	Geographic Place Name or Distance and Direction from the Named Location: Mary River Project Mine Site, Baffin Island, NU	Region: <input type="checkbox"/> NT <input checked="" type="checkbox"/> Nunavut <input type="checkbox"/> Trans-boundary or Ocean		
E	Latitude: 71 Degrees 53 Minutes 14 Seconds	Longitude: 80 Degrees 53 Minutes 57 Seconds		
F	Responsible Party or Vessel Name: Baffinland Iron Mines Corp.	Responsible Party Address or Office Location: 360 Oakville Place Dr. Suite 300, Oakville, ON, Canada, L6H6K8		
G	Any Contractor Involved: N/A	Contractor Address or Office Location: N/A		
H	Product Spilled: <input type="checkbox"/> Potential Spill Effluent	Quantity in Litres, Kilograms or Cubic Metres: Unquantified	U.N. Number: N/A	
I	Spill Source: MP-05, Runoff water	Spill Cause: Extreme Precipitation Event	Area of Contamination in Square Metres: N/A	
J	Factors Affecting Spill or Recovery: Ongoing extreme precipitation	Describe Any Assistance Required: N/A	Hazards to Persons, Property or Environment: N/A	
K	Summary of the spill incident and efforts / description of the incident: Sedimentation Pond MP-05 at Milne Port, which was previously emptied in preparation for winter conditions, continued to have water pumped to pond MP-06 to maintain low pond level conditions due to ongoing precipitation throughout September. Additional pumping was established at MP-05 on September 21 due to the increased rainfall and rising pond levels. On the morning of September 22, rainfall water and wave action caused ponded water to overtop the berm during this intense rainfall event. All available pumps were subsequently re-deployed to establish a controlled discharge and eliminate the overflow from the pond via the engineered spillway. As of 16:00 September 22, all uncontrolled release from the pond has ceased and the discharge is fully controlled via pumping. Ongoing monitoring to characterize the release will be included 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 and as required by subsection 38(5) of the Fisheries Act.			
L	Reported to Spill Line by: Todd Swenson	Position: Environmental Superintendent	Employer: Baffinland Iron Mine	Location Calling From: Baffinland Telephone: (647) 253-0596
M	Any Alternate Contact: Connor Devereaux	Position: Environmental Manager	Employer: Baffinland Iron Mine	Alternate Contact Location: Baffinland Alternate Telephone: (647) 253-0596

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"/> CIRNAC <input type="checkbox"/> CER <input type="checkbox"/> Other: _____				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:					

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October 22, 2024

Resources Management Officer
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Iqaluit, NU X0A 0H0

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

Fishery Officer
Ontario Field Unit –
Parry Sound Detachment
933 Mivik Street
Iqaluit, NU X0A 0H0

Re: Unprecedented Rainfall Event – September 21 and Follow-up to Spill; 2024-478

Mary River Project – Water Licence No.2AM-MRY1325

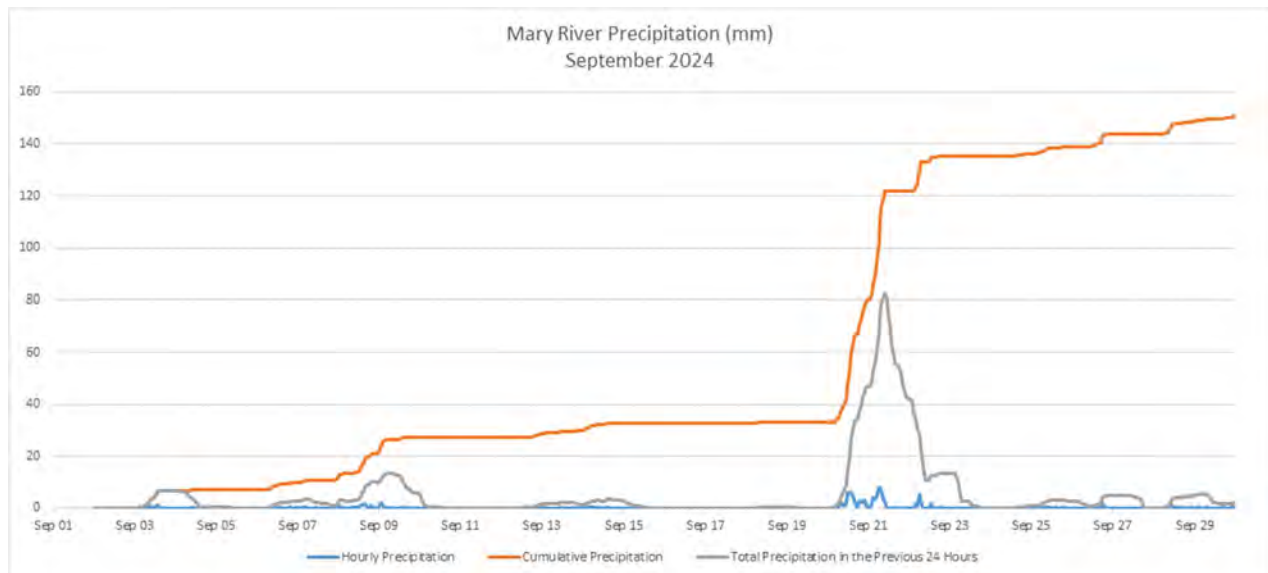
Summary:

Baffinland's Mary River Mine Site and the surrounding region experienced unprecedented levels of rainfall from September 20 through September 22, resulting in significant erosion and infrastructure damage to the Tote Road. Over the three day period, a maximum of 82.2 mm of rainfall was recorded at the Mary River Mine Site weather station in a 24-hour period, extrapolated to be a 200 year 24-hour rainfall event, with rainfall continuing and accumulating a maximum of 108 mm of precipitation over a 72-hour period. Unprecedented high flows in watercourses resulted in overland flooding, and significant erosion occurring along the Tote Road between kilometres 50 and 87.5. Hazardous weather conditions prevailed throughout the period which hindered response and monitoring initiatives on the Tote Road and the Mary River Mine Site. Baffinland notified regulatory organizations of the unprecedented rainfall event (Baffinland Severe Rainfall Event Notification, dated September 22, 2024) and findings from initial Tote Road inspections (Technical Memorandum: Summary of Tote Road Conditions Following Unprecedented Rainfall Event, dated September 24, 2024). These reports are included as Attachment 5 and 6.

In addition, elevated levels of Total Suspended Solids (TSS) were observed across site from natural sedimentation events and Project-related run-off associated with the severe rainfall event. Water quality monitoring was initiated at the Mine Site, when it was safe to do so, under the Surveillance Network Program (SNP) in response to the September rainfall event. Monitoring results of D1-05 on September 20 downstream of SNP stations adjacent to the Mine Site on Sheardown lake Tributary documented low TSS. Elevated TSS was documented on September 22 at surface water monitoring stations MS-C-A, MS-C-B, MS-C-C, MS-C-D, MS-C-E, and MS-C-F, down gradient of mine site infrastructure. Subsequent scheduled sampling was completed on October 2 and 3 documenting sample results, except for MS-C-F, below applicable water licence TSS criteria. The results demonstrate the elevated TSS was transitory in nature. MS-C-F returned below applicable criteria on October 8th. MS-C-F is located down stream of km 105 dam infrastructure. 2024 Monitoring results, including results during the rain event, will be reported on in an end of year comprehensive report for the Km 105 dam. ESC implemented at the Mine Site in response to the September rainfall event is described in the Immediate and Follow-Up Action section below. Water quality results for SNP monitoring during the duration of the rain event will be summarized in the September Monthly Water Licence Report.

Figure 1 shows the hourly, cumulative, and total precipitation over 24-hours at the Mary River Mine Site during the month of September 2024. Tabulated precipitation data between September 20 – 23, which includes the

peak 24-hour rainfall of 82.2 mm that occurred between 10:00 am September 20 and 10:00 am September 21, is summarized in Attachment 7.



Tote Road infrastructure significantly impacted included, however not limited to, damage at the following locations:

- Km 67 hill: severe road surface degradation
- Km 72 dip: overland/road flooding, road surface degradation
- Km 87: overland/road flooding, debris deposition from natural source
- Km 63.5 / CV-049 (fish bearing watercourse): complete wash-out of roadway
- Km 64: complete wash-out of roadway
- Km 51: severe road surface degradation

The Tote Road, was closed to all traffic commencing September 20, including emergency vehicles. The road was re-opened on September 29 to light vehicles, as initial emergency road repairs were completed.

During the full closure of the Tote Road, a helicopter was available for transportation between Milne Port and Mary River for emergency services. High-risk activities were discontinued when helicopter access was constrained due to weather conditions. An interim emergency measures plan was subsequently implemented to re-establish and restore the Tote Road to immediately facilitate emergency vehicles, critical fuel supplies and resources, restore fish passage at Km 63.5 (CV-049), for transportation of staff between sites for upcoming shift change flights, and hunter/visitor transportation as required. This emergency measures plan included repairs to the above mentioned sections of the Tote Road. A Twin Otter aircraft was also temporarily secured to transport Milne Port passengers to the Mary River Aerodrome for scheduled rotational departures while roadwork under the interim emergency plan was implemented. A temporary landing zone was established at Milne Port to accommodate the Twin Otter aircraft flights. Following completion of initial measures to re-establish and restore the Tote Road to facilitate access for critical and emergency activities, Tote Road reconstruction activities were completed to repair damage from the September rainfall event. Further details of the interim measures and subsequent major reconstruction work completed at significant locations are provided in the immediate and follow up action summary below.

Photos of the Tote Road erosion and infrastructure damage, and current status of the locations are provided in Attachment 1. Figures showing the locations of the Mine Site SNP and D1-05 sampling locations, and Tote Road erosion/infrastructure issues are provided in Attachment 2 and Attachment 3, respectively. The expectation of elevated TSS across the Mary River site from natural sedimentation events and Project-related run-off associated with the severe rainfall event was reported to the NT-NU Spill Reporting Line on September 22, 2024. The NT-NU Spill Report (#2024-478) is included as Attachment 4.

Erosion, landslides and potential redirection of watercourse channels, not related to Project infrastructure, were noted in the natural lands within the regional area. Due to demobilisation of helicopter resources from the Project, surveys for additional natural sedimentation were not able to be conducted. See Attachment 6 for examples of observations made during reconnaissance of regional conditions.

Immediate and Follow-Up Action:

Interim Emergency Measures Work:

Initially, the full extent of damage to the Tote Road was unknown. Road Maintenance crews commenced initial remediation of flood-related damage as it was encountered to re-establish, safe passage along the entire Tote Road to facilitate access of emergency vehicles, critical fuel supplies and resources, and for transportation of staff between sites for upcoming shift change flights. Initial remediation at Km 87, Km 72, Km 67, and Km 51 included:

- Clearing debris from the road
- Aggregate replacement and road surface construction, grading and restoration

Re-construction at Km 64 commenced on September 23 and included the following:

- Filling in of eroded scour channel with sand and water mixture to encourage permafrost re-growth
- Recovery and reconstruction of roadbed material including compaction in lifts to re-establish road grade
- Placement of suitable road building materials and capping to re-establish full road dimensions
- Establishment of roadside drainage to encourage future high water to flow adjacent to the road and prevent overtopping

No natural in-stream activity was involved with completion of this re-construction work on the road and drainage channel.

Re-construction at Km 63.5 commenced on September 25 and included:

- Installation of silt fences and coir logs along the north and south watercourse shore lines
- Removal of old culverts from crossing area
- Construction of diversion berms to direct flow to one side of the work area
- Backfilling and compaction of bedding material around low flow culvert and then the 1.0 m high flow culvert

- Armouring the inlet and outlet embankments with boulders and re-armouring areas prone to high flows during freshet.

In-stream turbidity monitoring and fish surveys were completed during work activities.

Environmental monitoring was conducted throughout the initial emergency measures work, including assessing and installing Erosion and Sediment Control (ESC) measures as needed in accordance with Baffinland's Surface Water Aquatic Effects Management Plan (SWAEMP). ESC measures implemented during the initial remediation work included:

- Adding aggregate and grading low areas on site roadways to prevent water pooling
- Limiting traffic on saturated roadways until conditions improve
- Installing coir logs, silt curtains, silt fence, floc blocks, spring berms, check dams, water diversion swales, ditching, and berms to reduce elevated TSS and turbidity within watercourses
- Inspecting and maintaining existing ESC measures

Environmental monitoring during the emergency measures road work also included construction water quality monitoring upstream and downstream of work areas.

CV-49 was successfully re-instated and disturbance to the streambed was minimized by:

- Surveying the streambed to ensure culvert placement aligns with watercourse and maintains the natural gradient of the watercourse slope
- Only removing high spots of streambed substrate along the culvert footprint to ensure a flush fit between the culvert and streambed (substrate at this crossing is primarily cobble with sand/ gravel infill and some boulders)
- Tying the culvert into natural watercourse features like an inlet pool and outlet step pool to retain fish resting areas and ensuring the culvert aligned with the natural watercourse wetted width.

Tote Road Recovery Plan - Major Tote Road Construction Work:

Major re-construction work continued and was completed as follows to fully repair damage from the September rain event:

Re-construction at Km 64 was completed October 2 and included:

- Establishment of roadside drainage to encourage future high water to flow adjacent to road and prevent overtopping.

No natural in-stream activity was involved with completion of this re-construction work.

Re-construction at Km 63.5, (CV-49, fish-bearing) was completed September 28 and included:

- Backfilling and compaction of road base material followed by road surface material
- Armouring the inlet and outlet embankments with boulders and re-armouring areas prone to high flows during freshet
- General environmental construction monitoring consisting of water quality monitoring upstream and downstream of the work area.

During reconstruction, instances of elevated levels of turbidity were measured, but returned to lower levels. Regular monitoring continued during reconstruction of these areas.

The northbound lane at Km 51, (CV-078, fish-bearing) was washed out, while the southbound lane remained largely intact. Repairs commenced September 28, and included:

- Stabilizing the inlet and outlet embankments with boulders, rip rap
- Placing and compacting road base and road surface aggregate
- General environmental construction monitoring consisting of water quality monitoring upstream and downstream of the work area

The main channel culverts, were damaged during the flood event at the inlets. The end sections of culverts were detached and a deep pool formed in front of the remaining inlet. Both culverts maintained fish passage due to high flow but may not convey water during low flow due to the deep pool. Re-extending these culverts will facilitate their tie-in with the original shallow streambed, approximately 20 ft upstream. The smaller culvert located approximately 25 ft south in a secondary channel was not damaged by the flood and continues to maintain fish passage.

ESC measures implemented during this construction work included:

- Adding aggregate and grading low areas on site roadways to prevent water pooling
- Remediating scouring and restoring road grading, ditches and drainage to pre-established sediment and erosion control features

Mine Site TSS Immediate and Follow-Up Action:

At the Mine Site, ESC measures were assessed and installed where applicable in accordance with the SWAEMP and maintained and adjusted as required. These locations have had various ESC measures installed and maintained in the past. These existing measures were assessed, modified and maintained following the precipitation event. At MS-C-D, additional ESC measures were implemented: two lines of spring berms were installed, approximately 17.5 meters upstream of the monitoring location. A set of floc blocs were deployed approximately 3 meters upstream from the spring berms. Due to the nature of the elevated TSS caused by an unprecedented amount of precipitation, ESC measures were difficult to implement. On-going precipitation resulted in localized overland flooding in the monitoring area and the movement of sediment laden water.

Current Status:

The majority of Tote Road re-construction work under the Tote Road Recovery Plan has been completed. The Tote Road was reopened to light vehicle traffic on September 29, and to heavy vehicle traffic on October 3. Continued rain events in early October, following remediation activities, indicate the measures put in place have functioned as intended.

At the Mine Site, water quality monitoring and inspections of SNP sampling locations and ESC measures continued to be completed until the onset of frozen winter conditions. Follow up monitoring demonstrated elevated TSS concentrations associated with the rainfall event returned to levels below applicable water licence guidelines.

Should you require further information or clarification on the above noted spill, please feel free to contact the undersigned or Todd Swenson

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Attachments

Attachment 1: Photos

Attachment 2: Mine Site SNP and D1-05 Sample Location Map

Attachment 3: Erosion and Infrastructure Damage Location Map

Attachment 4: Baffinland NT-NU Spill Report #2024-478

Attachment 5: Baffinland Severe Rainfall Event Notification dated September 22, 2024, and Technical Memorandum: Summary of Tote Road Conditions Following Unprecedented Rainfall Event, dated September 24, 2024

Attachment 6: Summary of Natural Sedimentation Events and Washouts in Areas Surrounding Mary River

Attachment 7: Tabulated Precipitation Data September 20 – 23, 2024 for Mary River



Attachment 1: Photos



Photo 1: KM 87 Tote Road Completely Flooded – September 22, 2024



Photo 2: KM 87 Tote Road Remediated, Sand and Debris Cleared from Flood– October 9, 2024



Photo 3: The KM 72 Dip Tote Road Completely Flooded and Severe Road Degradation – September 22, 2024



Photo 4: The KM 72 Dip Tote Road Following Road Resurfacing. Check Dams Adjacent to Road Operating as Designed – September 22, 2024



Photo 5: The KM 72 Dip Flood Debris Cleared and Repairs Complete – October 9, 2024



Photo 6: The Tote Road at KM 67 Hill Partially Washed Out – September 22, 2024



Photo 7: The KM 67 Hill Remediated – October 9, 2024



Photo 8: KM 64 Tote Road Completely Washed Out - Aerial View – September 23, 2024



Photo 9: KM 64 Tote Road Active Road Replacement Occurring– September 24, 2024



Photo 10: KM 64 Reconstructed – September 27, 2024



Photo 11: KM 63.5 and CV-049 Tote Road and Culverts Completely Washed Out – September 23, 2024



Photo 12: KM 63.5 and CV-049 Culvert Remediation – September 27, 2024



Photo 13: KM 63.5 and CV-049 Culvert Remediation - September 27, 2024



Photo 14: KM 63.5 and CV-049 Culvert Remediation - September 27, 2024



Photo 15: KM 63.5, upstream culvert inlet, looking south west, 2024-10-02



Photo 16: KM 51 Severe Road Degradation and Partial Washout – September 21, 2024



Photo 17: KM 51 Tote Road and Culverts remediation near Completion – September 28, 2024



Photo 18: Rip-rap Placed along the Upstream Side of KM 51 Crossing – September 29, 2024