

APPENDIX C.2
Geotechnical Inspection Report



October 29, 2025

Abid Jan
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0

RE: Submission of Annual Geotechnical Inspection – 2025, Mary River Project – Nunavut, August 29, 2025; Project # CA0055338.6747

Under Part D item 16 and Part I, Item 9 and 10 of Baffinland Iron Mines Corporation's (Baffinland) Type "A" Water Licence 2AM-MRY2540 (Water Licence), Baffinland is required to conduct annual geotechnical inspections of specified Mary River Project (the "Project") infrastructure and include them within the Annual Report and sixty days following the inspection report outlining an implementation plan to respond to the Engineer's recommendations.

The geotechnical inspection for 2025 was conducted by Laszlo Bodi, M.Sc., P.Eng., Principal Civil/Geotechnical Engineer with WSP Canada Inc, on July 1st through 8th and the report was received on August 29th. The focus of the inspection was on the Water Licence related infrastructure located at the Mary River Mine Site and Milne Port, pursuant to Part I, Item 9. Part I, Item 9 states that:

"The Licensee shall undertake a geotechnical inspection of all engineered facilities designed to contain Water or Waste, to be carried out annually by an Engineer between the months of July and September. The inspection shall be conducted in accordance with the Canadian Dam Safety Guidelines, where applicable and including the following:

- a) Pit walls
- b) Quarries
- c) Landfills
- d) Landfarms
- e) Bulk Fuel Storage Facilities
- f) Sediment Ponds
- g) Collection ponds
- h) Polishing Waste Stabilization Ponds"

During the inspection, the following structures and facilities were inspected:

1.0 Mary River Mine Site

- a) Berms of exploration camp polishing waste stabilization ponds – PWS ponds 1 – 3
- b) Berms around exploration camp hazardous waste disposal cells – HWB-1 to HWB-7

- c) Ore stockpile sedimentation pond near the crushing plant – MS-06
- d) Sedimentation pond adjacent to the run-of-mine ore stockpile – MS-07
- e) Sedimentation pond adjacent to the waste rock stockpile facility – MS-08
- f) KM-105 surface water management pond – MS-11
- g) Former fuel bladder cell adjacent to the exploration camp generator – “Genset cell”
- h) Aerodrome jet-fuel storage facility
- i) Bulk fuel storage facilities (2) – MS-01 and MS-03B
- j) Non-hazardous waste landfill facility and two adjacent, lined, landfarm cells
- k) Surface water and drainage conditions at the QMR2 rock quarry

2.0 Milne Inlet Port Site

- a) Berms around three hazardous waste disposal cells – HWB-1, HWB-3, and HWB-4
- b) Berms around the polishing waste stabilization pond – MP-01a
- c) Bulk fuel storage facility – MP-03
- d) Landfarm facility (MP-04) and contaminated snow disposal cell (MP-04A)
- e) Berms around the ore stockpile sedimentation ponds – Pond #3, MP-05, MP-06 and MP-06A
- f) Surface water drainage conditions at the Q01 rock quarry

The attached report (Attachment 1) presents the findings and recommendations of the inspection for the aforementioned structures. The following subsections of this letter summarize Baffinland’s plan for implementing the recommendations identified in the 2025 geotechnical inspection report (**in bold**).

2025 Geotechnical Inspection Recommendations and Implementation Plan

1. Mary River Mine Site

1.1 Polishing Waste Stabilization Pond (3 PWS ponds)

No concerns noted

1.2 Berms around exploration camp hazardous waste disposal cells – HWB-1 to HWB-7

Recommendation: It is recommended that foot and truck traffic on the slopes and crest of the berms be limited to maintain the integrity and stability of the berms. Trucks may only use the designated entry/exit ramps to access the cells, and those ramps should be frequently maintained. Furthermore, no waste materials should be placed on the slopes or crest of the berms, they must be stored within the cells only.

Baffinland Action: Berm sections disturbed by foot and truck traffic will continue to be maintained during routine maintenance activities. Baffinland continues to educate personnel on access to berms.

a) HWB-1

No concerns noted because this HWB is no longer in use.

b) HWB-2

Recommendation: Debris in one corner should be removed. One shipping container was left on the access ramp to the cell, which should be removed or moved into the cell from the ramp.;

Baffinland Action: The shipping container will be relocated and the debris cleared.

c) HWB-3 and HWB-4

Recommendation: Broken wood pallets and other debris should be removed from the cells and from the crest and slopes of the berms.

Baffinland Action: The debris will be cleared from the slopes of the berms.

d) HWB-5

No concerns noted

e) HWB-6

No concerns noted.

f) HWB-7

No concerns noted.

1.3 MS-06, MS-07, MS-08 and MS-11 Surface Water Management Ponds

a) MS-06 Surface Water Management Pond Adjacent to the Crusher Pad

Recommendation: One side of a culvert is partially blocked and should be cleaned to facilitate uninterrupted flow of water through the pipe. A second culvert is damaged and clogged. This culvert should be replaced or restored. Alternatively, this culvert could be removed permanently and the slopes of the ditch reinstated.

Baffinland Action: Baffinland can confirm that the culverts pass water currently and the second culvert is not clogged. The culverts are scheduled for routine cleaning and steaming in spring 2026 to remove the build up of sediment and ice within the culverts to ensure water conveyance to MS-06.

b) MS-07 – Surface Water Management Pond Adjacent to the KM106 Stockpile

No concerns noted.

c) MS-08 - Surface Water Management Pond Adjacent to the Waste Rock Facility

Recommendation: Along the settled zone, the crest of the berm should be raised back to its original elevation by placement of crushed aggregate/rock fill.

Baffinland Action: The road way on the berm is utilized for light vehicle traffic and material is added on an as needed basis. The berm elevations will be assessed in 2026 during the snow free season and additional material added.

d) MS-11 – Surface Water Management Pond at KM105

No recommendation made. Baffinland will continue with the planned water management features, which include reconfiguring the former KM 105 Pond from a “retention and release” impoundment to a passive, flow-through filtration system, which entails construction of a filter berm and a Final Discharge Point.

1.4 Berm of the Cell for Generator Fuel Bladders

No concerns noted.

1.5 Fuel Storage Berms (3)

a) Jet-fuel Tank Farm

No concerns noted.

b) MS-03 Diesel Fuel Tank Farm

No concerns noted.

c) MS-03B Fuel Tank Farm

No concerns noted.

1.6 Solid Waste Disposal Area and Two Lined Landfarm Cells

Recommendation: The water should be removed and properly disposed of prior to storing any waste material within the cell.

Baffinland Action: Baffinland performed a discharge of 1069 m3 of compliant water in September from the aforementioned land farm cell to remove the ponded water. Discharge will be warranted again following snow melt in 2026.

1.7 QMR2 Rock Quarry – Drainage Conditions

Recommendation: The uncontrolled surface water presents not only potential slope stability issues in the area, but also traffic safety issues as well, particularly during freezing periods. If the operation in the quarry were to resume, the surface water at the quarry’s main level should be collected in drainage ditches and sumps excavated at strategic locations, and then properly drained from the sump(s) down on the side-slope of the plateau to maintain traffic safety and stable slopes.

Baffinland Action: The Operation of the QMR2 is not slated to resume in the foreseeable future. Drainage improvements will be incorporated into the eventual reclamation of the area or prioritized if use is expected to resume. As such Baffinland will continue to monitor water quality coming from the quarry in alignment with the applicable Management Plans and the Water Licence.

2. Milne Inlet Port Site

2.1 Hazardous Waste-cell Berms (HWB-1 to HWB-4)

a) HWB-1

Recommendation: Materials on pallets should be stored within the cell, not on the slopes and crest of the berms.

Baffinland Action: The materials will not be stored on the slopes and crest of the berms. The berm is in ongoing operations and will continue to have materials removed from the crests of the berm in 2026.

b) HWB-2

No concern because the HWB has been decommissioned.

c) HWB-3 and HWB-4

No concerns noted.

2.2 MP-01A Polishing Waste Stabilization Pond (PWSP)

No concern noted.

2.3 MP-03 Fuel Tank Farm

No concern noted.

2.4 MP-04 and 04A Landfarm and Contaminated Snow Disposal Cells

No concerns notes.

2.5 Surface Water Management Pond (Surface Water Management Pond #3, MP-05, MP-06 and MP-06A Ponds)

a) Surface Water Management Pond #3

No concern noted.

b) MP-05 Pond

Recommendation: Minor damage was noted in the liner at the intake channel to the MP-05 pond, as shown in Figure 58. The damage should be repaired as soon as practically possible.

Baffinland Action: Baffinland notes that that the damage in no way currently impairs the conveyance of water to the pond and the impacted liner is well above the high-water mark of flow from the ditches. Baffinland will continue to monitor the liner damage and make repairs should it functionally impact the water conveyance

c) MP-06 and MP-06A Ponds

No concerns noted.

2.6 Q01 Rock Quarry – Drainage Conditions

Recommendation: It is suggested that additional drainage ditches be provided within the new fill pad (around its perimeter at strategic locations), to improve the control of surface water in the area. The

collected water from those additional ditches should be drained/conveyed into the nearby P-SWD-5 drainage ditch.

A section of the P-SWD-5 (“Q01-North”) ditch is missing riprap cover along a section of the quarry’s main level. As pointed out in earlier reports, it appears that there is continuous subsurface water seepage from within the adjacent granular pad of the quarry’s main level at that location, resulting in periodic sloughing/erosion of the quarry side of the ditch just along this short section shown in the image. It is recommended that the somewhat finer soil, currently forming the side of the ditch, be removed to a depth/width of around 1 m and replaced with crushed rock fill. To minimize migration of fine soil particles from the quarry’s granular pad to the ditch, the crushed rock fill should be placed over a layer of geotextile fabric.

The improvement of this section of the ditch shall be completed with the formation/excavation of additional drainage ditches, required to rectify the ponding water issue that is present in many parts of the lower (main) level of the quarry, as pointed out above. Figure 62 also shows a clogged, undersized culvert under the access road to the quarry in this P-SWD-3 ditch. The clogged, undersized culvert should be removed and replaced with a larger diameter pipe at this location.

Baffinland Action: Baffinland acknowledges the recommendation for the Q01 Rock Quarry area. Surface water management will be supported through pumping activities as required to maintain proper drainage and address ponding water. Baffinland also confirms that remedial work to address the missing riprap and associated erosion along the P-SWD-5 (“Q01-North”) ditch is scheduled for the next construction season. Baffinland will continue to monitor water quality coming from the quarry in alignment with the applicable Management Plans and the Water Licence.

2.7 The Haul Road and Permafrost (Tote Road)

Recommendation: Replace the twin culverts at KM 33+100 and the five culverts at KM 80+500 with new ones installed over thaw-stable, compacted granular subgrade to restore drainage function and prevent future instability.

Baffinland Action: The replacement of the culverts located at KM80.5 (CV-216) is planned for Q4 2025 after permitting was completed in Q3. Baffinland will follow the approved design and Fisheries Act Authorisation associated with the replacement. With respect to the culverts at KM33 (CV-106), DFO initially identified this location as requiring remediation, which was actioned in 2024. However, since installation, and as noted within the geotechnical inspection, noticeable settlement has occurred, and a geotechnical drilling program identified ice beneath the soils. As such, replacement of the culverts is currently being scoped through the design process with Stantec while respecting the ice lens below the crossing. Following design completion and permitting a construction schedule will be determined.



In summary, the surface water management ponds and waste disposal areas are enclosed by stable, well-constructed perimeter berms that show no signs of distress such as cracking, settlement, or erosion. These berms, built with thaw-stable granular materials, will not be subjected to vehicle traffic, and ramps used for access will be properly maintained. Materials and debris will be kept within designated cells, with noted debris (such as broken pallets) removed. The ponds and waste cells are lined with HDPE/LLDPE liners that remain in good condition.

Drainage concerns noted in the lower levels of the quarries at the Mary River and Milne Inlet Port sites will be monitored through the Surveillance Network Program for potential impacts. At the KM-105 site, a trial filter berm installed in the south pond has proven effective in improving water quality by reducing suspended solids. BIM is in the process of reconfiguring the former KM 105 Pond from a “retention and release” impoundment to a passive, flow-through filtration system, which entails construction of an additional filter berm and a Final Discharge Point

We trust that this submission meets the requirements for geotechnical inspections as outlined in the Water License. Should you have any questions, please do not hesitate to contact the undersigned.

Regards,

William Bowden

Environmental Manager

Attachments:

Attachment 1: Annual Geotechnical Inspections – 2025 Report Mary River Project – Nunavut, August 29, 2025

Cc: Karén Kharatyan (NWB)
Chris Spencer, Conor Goddard (QIA)
Omer Pasalic, Sean Naullaq, Jeremy Fraser (CIRNAC)
Megan Lorde-Hoyle, Lou Kamermans, Elisabeth Luther, Francois Gaudreau, William Bowden,
Todd Swenson, Katie Babin, Allison Parker, Irniq Lecompte (Baffinland)



Attachment 1

2025 Geotechnical Inspection Report

BIM Corporation

August 29, 2025
Project #: CA0055338.6747

Annual Geotechnical Inspection – 2025 Mary River Project – Nunavut



Location of the Mary River Mine and Milne Inlet Port on Baffin Island - Source: Baffinland Iron Mine

August 29, 2025
CA0055338.6747

Mr. Pascal Poirier – Senior Water Management Engineer, Mary River Iron Mine, BIM Corporation
Mr. William Bowden - Environmental Manager, Mary River Iron Mine, BIM Corporation
360 Oakville Place Drive, Suite 300,
Oakville, Ontario, L6H 6K8

Re: Annual Site Inspection and Reporting 2025 - Mary River Iron Mine Complex, Nunavut

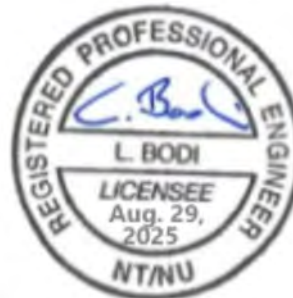
WSP Canada Inc. has been retained by Baffinland Iron Mines Corporation to carry out Annual Geotechnical Engineering Services at the Mary River Mining Project in Nunavut. Based on information and guidance, provided in connection with the site's infrastructure, the undersigned has completed the required inspection for 2025 and summarized the findings in the following report. In addition to field observations, the following historic reports and documents had also been reviewed:

- Annual Geotechnical Site Inspections (2019, 2020, 2021 and 2022 1st report) – Wood E&I
- Construction Summary Reports – Crusher Pad Sedimentation Pond Expansion (2019); Waste Rock Pond Expansion Drainage System; KM-106 Run of Mine Stockpile & Sedimentation Pond (2020) and Mine Site Land-farm Cell 1 and Cell 2 (2022); Dam construction and liner installation at KM105 (2021-2022). KM105 Sedimentation Pond Design Brief and Issued for Construction Drawings – Knight Piésold Ltd. (2021)
- Annual Geotechnical Site Inspections (2022 - 2nd and 2023 reports) – WSP E&I Canada Limited
- Annual Geotechnical Site Inspection 2024 – WSP Canada Limited
- Nunavut Water Board's Renewed Type "A" Water Licence No: 2AM-MRY2540 – Part I, section 9.

We trust that the content of this report meets your expectations. Should you have any questions regarding the details presented in the following document, please do not hesitate to contact our office.

Sincerely,

WSP Canada Inc.



Laszlo Bodi, M.Sc.; P.Eng. – Senior Principal Civil/Geotechnical Engineer - WSP Canada Inc.

Table of Contents

	Page
1.0 Introduction	4
2.0 Mary River Mine Site	14
2.1 Polishing Waste Stabilization Ponds (3 PWS ponds)	14
2.2 Hazardous Waste-Cell Berms (HWB-1 to HWB-7)	14
2.3 MS-06, MS-07, MS-08 and MS-11 Surface Water Management Ponds	16
2.4 Berm of the Cell for Generator Fuel Bladders	18
2.5 Fuel Storage Berms (3)	18
2.6 Solid Waste Disposal Area and Two Lined Landfarm Cells	19
2.7 QMR2 Rock Quarry – Drainage Conditions	20
3.0 Milne Inlet Port Site	20
3.1 Hazardous Waste-cell Berms (HWB-1 to HWB-4)	20
3.2 MP-01A Polishing Waste Stabilization Pond (PWSP)	21
3.3 MP-03 Fuel Tank Farm	21
3.4 MP-04 and 04A Landfarm and Contaminated Snow Disposal Cells	21
3.5 Surface Water Management Ponds (Surface Water Management Pond #3, MP-05, MP-06 and MP-06A Ponds)	22
3.6 Q01 Rock Quarry – Drainage Conditions	23
3.7 The Haul Road and Permafrost	23
4.0 Conclusion	26
5.0 Closing Remarks	27

1.0 Introduction

WSP Canada Inc., has completed the required geotechnical field inspection of 2025 at the Mary River Mining Project, which is a condition of the Nunavut Water Board's Renewed Type "A" Water Licence No: 2AM-MRY2540.

Based on the requirements outlined in the Water Licence – Part I, Section 9, the annual field inspection shall include the review of various engineered facilities and structures designed to contain waste materials (hazardous and non-hazardous), and store water (ponds) at the Mary River Mine and Milne Inlet Port sites on Baffin Island, Nunavut, shown in Figure 1. The field review included visual assessment of the current condition of the berms, slopes and liners of the water and waste containment facilities and reporting on potential seepage/stability problems, if any.

As required by the Water Licence - Part I. Section 9, conditions of the waste and water retention infrastructure components need to be inspected between the months of July and September and documented in a summary report, including photographs. The inspected infrastructure components in July 2025 were reviewed in snow free conditions and included the following components:

A. Mary River Mine Site

- a) Berms of exploration camp polishing waste stabilization ponds – PWS ponds 1 – 3.
- b) Berms around exploration camp hazardous waste disposal cells - HWB-1 to HWB-7.
- c) Ore stockpile sedimentation pond near the crushing plant - MS-06,
- d) Sedimentation pond adjacent to the run-of-mine ore stockpile - MS-07,
- e) Sedimentation pond adjacent to the waste rock stockpile facility - MS-08
- f) KM-105 surface water management pond - MS-11
- g) Former fuel bladder cell adjacent to the exploration camp generator – "Genset cell".
- h) Aerodrome jet-fuel storage facility.
- i) Bulk fuel storage facilities (2) – MS-03 and MS-03B.
- j) Non-hazardous waste landfill facility and two adjacent, lined, landfarm cells.
- k) Surface water and drainage conditions at the QMR2 rock quarry.

B. Milne Inlet Port Site

- a) Berms around three hazardous waste disposal cells - HWB-1, HWB-3 and HWB-4.
- b) Berms around the polishing waste stabilization pond - MP-01a.
- c) Bulk fuel storage facility - MP-03.
- d) Landfarm facility (MP-04) and contaminated snow disposal cell (MP-04A).
- e) Berms around the ore stockpile sedimentation ponds - Pond #3, MP-05, MP-06 and MP-06A.
- f) Surface water and drainage conditions at the Q01 rock quarry.

The above listed infrastructure components were visually inspected in snow free conditions between July 1 and July 8, 2025, by the author of this report, Laszlo Bodi M.Sc.; P.Eng. of WSP Canada Inc. During the inspection the current condition of the above listed structures was visually observed, and the findings of the inspection are summarized in the following report.

The locations of the inspected infrastructure components at the two individual sites (Mary River and Milne Inlet Port) are shown in the following key maps:

- a) [Mary River Mine site](#) – Central Zone East (Figure 2), North-Eastern Zone (Figure 3), South-Eastern Zone (Figures 4 and 5), Central Zone West (Figure 6), Southern Zone (Figure 7), and Western Zone (Figure 8)
- b) [Milne Inlet Port site](#) – North-Western Zone (Figure 9), North-Eastern Zone (Figure 10), and South-Eastern Zone (Figure 11)

Photographs of the inspected structures are shown in the following documents (attached to this report):

- a) [Appendix A](#): Mary River Mine site – Figures 12 to 47
- b) [Appendix B](#): Milne Inlet Port site - Figures 48 to 63



Figure 1: Locations of the Mary River Mine and Milne Inlet Port Sites on Baffin Island.

Mary River Mine Site



Figure 2: Mary River Mine Site Layout Map - Central Zone East showing the MS-03 and MS-03B Bulk Fuel Storage Facilities and the MS-06 Ore Stockpile Pond - © 2023 Digital Globe, Inc.



Figure 3: Mary River Mine Site Layout Map – North-Eastern Zone – Waste rock stockpile facility's sedimentation pond (MS-08) and geotube ponds - © 2023 Digital Globe, Inc.



Figure 4: Mary River Mine Site Layout Map – South-Eastern Zone – KM106 run-of-mine ore storage facility and MS-07 sedimentation pond - © 2023 Digital Globe, Inc.

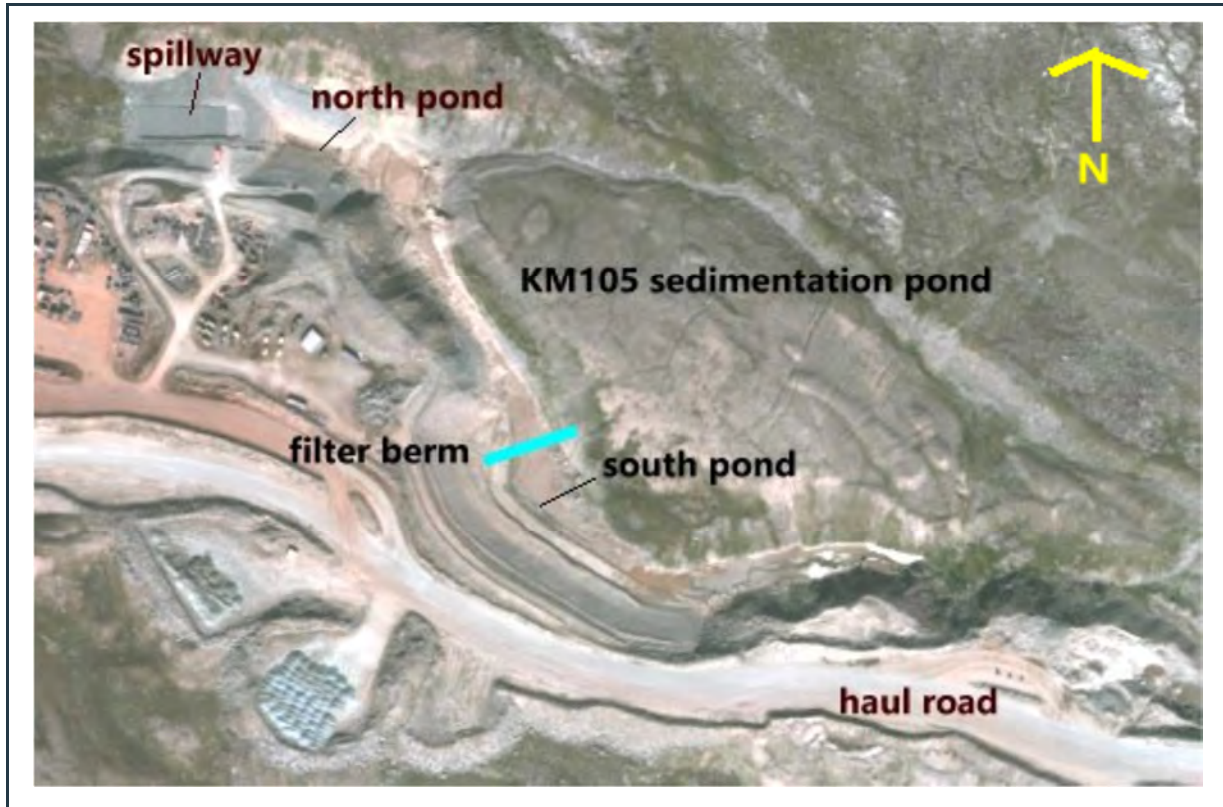


Figure 5: Mary River Mine Site Layout Map – South-Eastern Zone – KM105 sedimentation pond (MS-11). Note the location of the new filter berm in the south pond. - © 2023 Digital Globe, Inc.

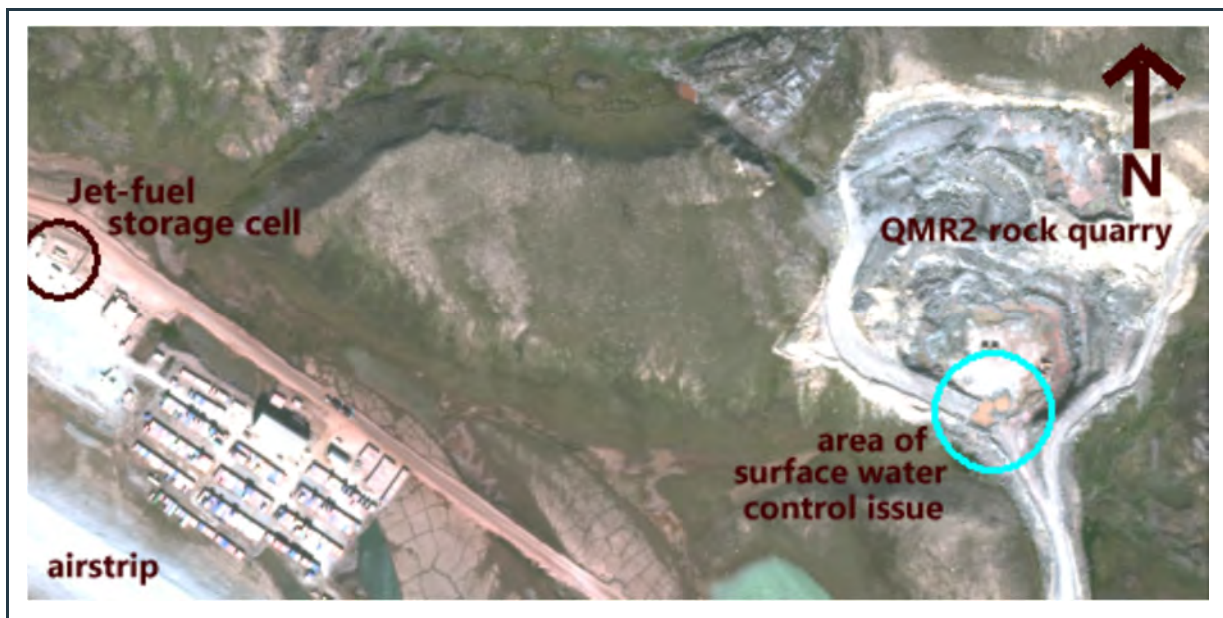


Figure 6: Mary River Mine Site Layout Map – Central Zone West – Jet-fuel storage cell near the airstrip and QMR2 rock quarry - © 2023 Digital Globe, Inc.



Figure 7: Mary River Mine Site – Layout Map – Southern Zone – Non-hazardous waste landfill facility and two adjacent, lined landfarm cells - © 2023 Digital Globe, Inc.



Figure 8: Mary River Mine Site – Layout Map - Western Zone – Polishing Waste Stabilization Ponds (1-3), Hazardous waste storage cells (HWB 1-7), and Genset cell - © 2023 Digital Globe, Inc.

Milne Inlet Port Site

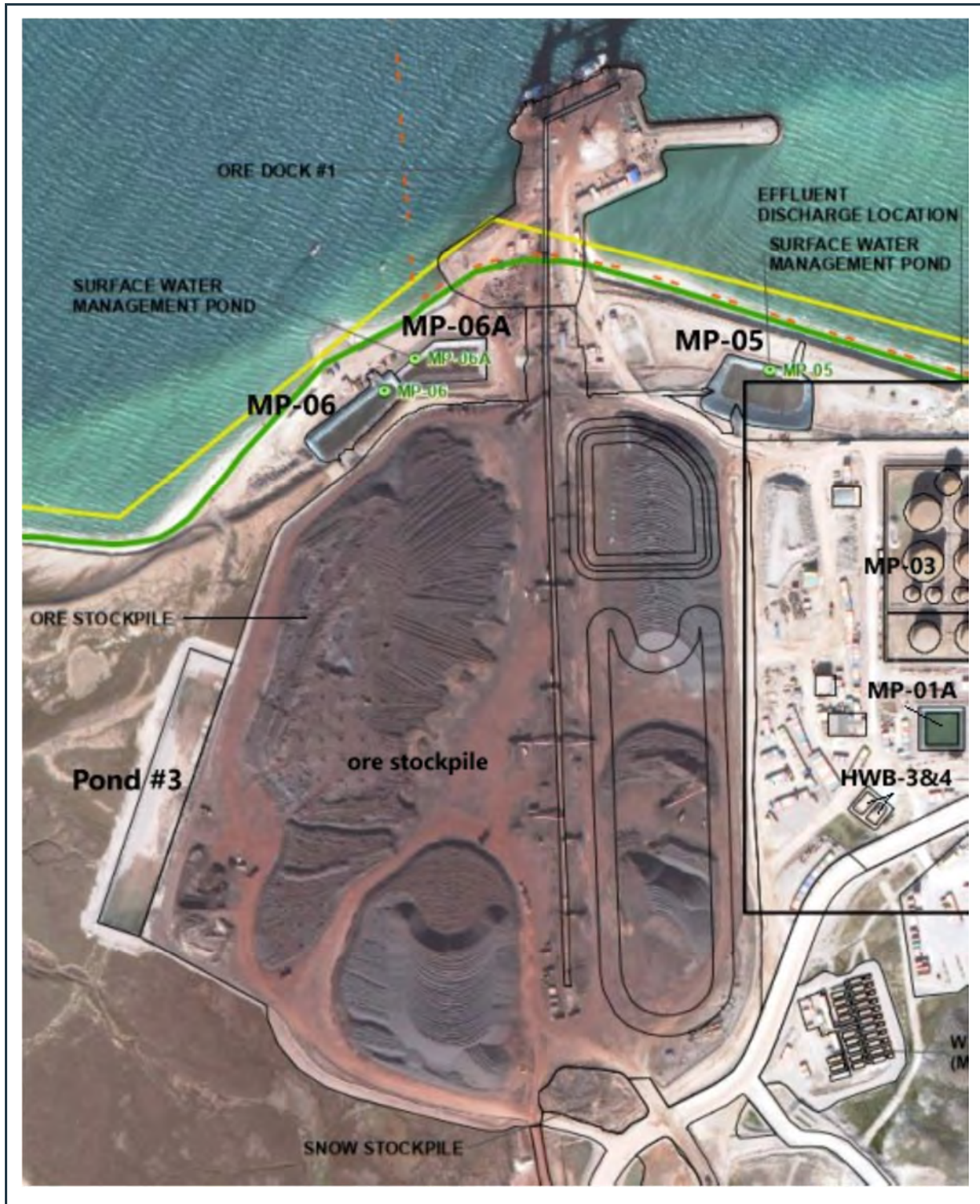


Figure 9: Milne Inlet Port Site – Layout Map -- North-Western Zone - © 2023 Digital Globe, Inc.

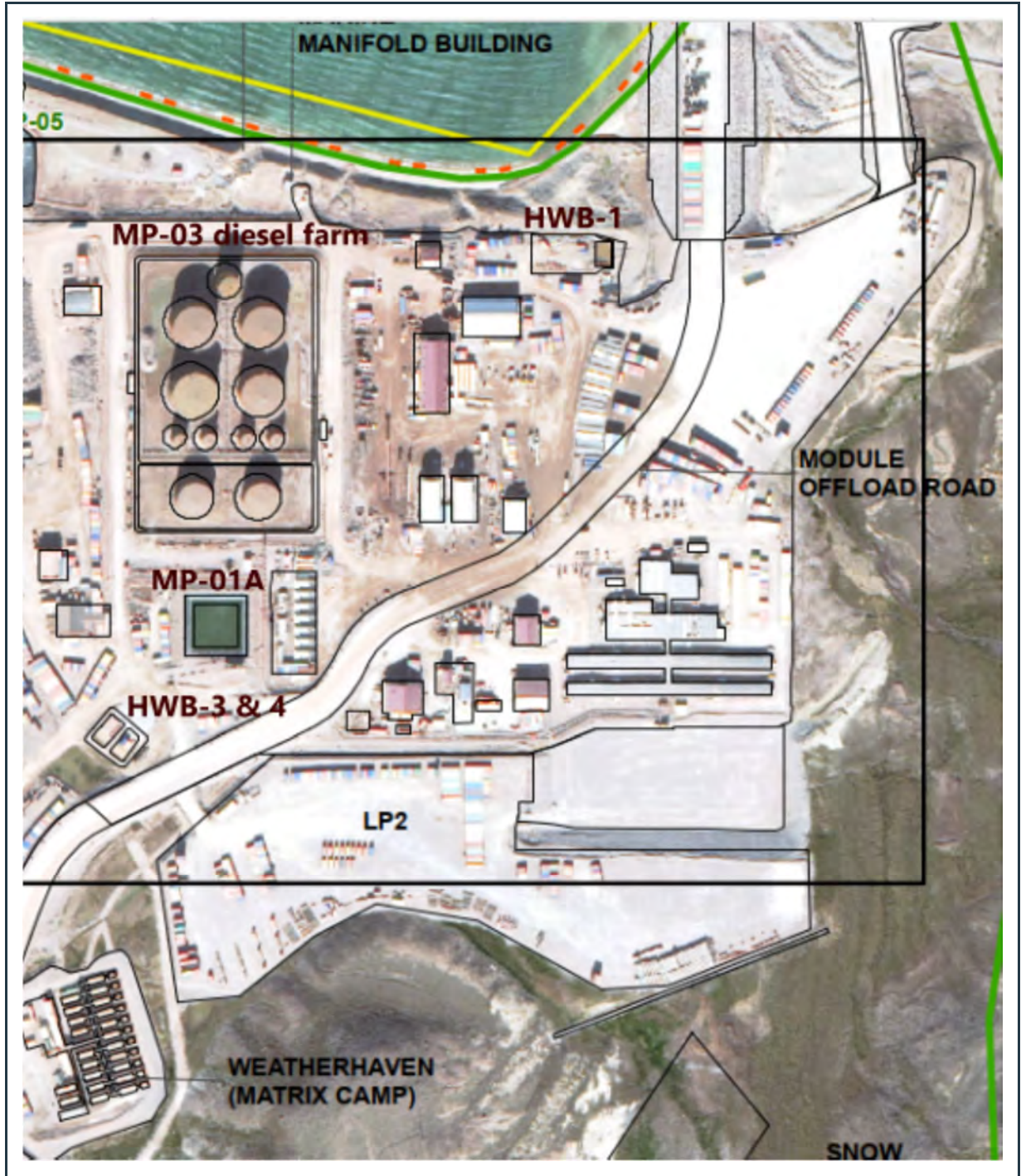


Figure 10: Milne Inlet Port Site – Layout Map – North-Eastern Zone - © 2023 Digital Globe, Inc.

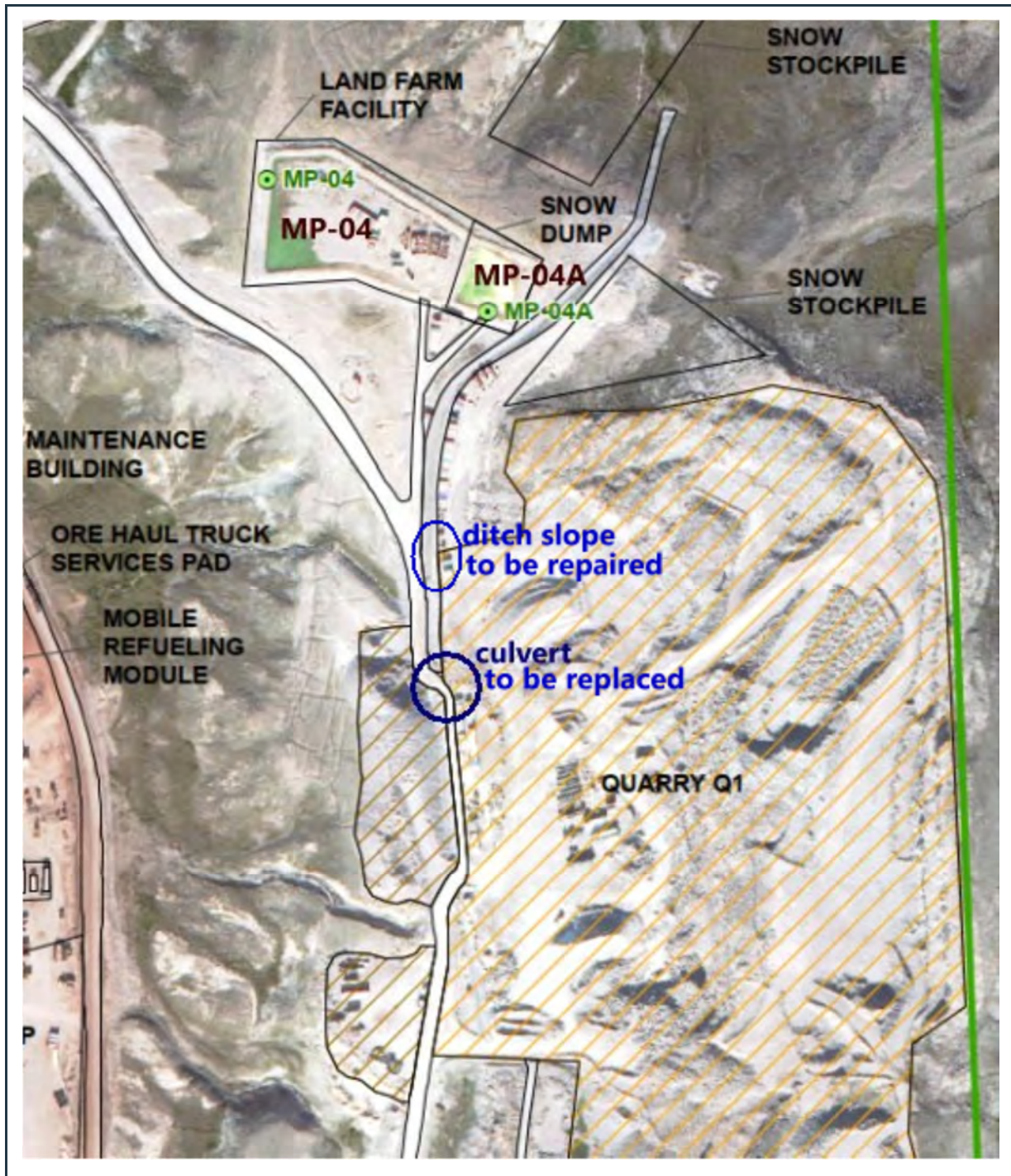


Figure 11: Site layout – Milne Inlet Port – South-Eastern Zone – Quarry Q1 - © 2023 Digital Globe, Inc.

Details of the recent condition survey of the individual infrastructure components, completed in July 2025, are summarized in the following sections of the report while the relevant photographs, maps and sketches are shown in Appendix A and B, as integral parts of this document.

2.0 Mary River Mine Site

2.1 Polishing Waste Stabilization Ponds (3 PWS ponds)

There are three (3) polishing waste stabilization (PWS) ponds, located adjacent to the airstrip, as shown in Figure 8. Pond #1 is a single structure, while Ponds #2 and #3 were constructed as twin-cells, as shown in Figure 12. The photograph in Figure 12 is a historic aerial image provided by BIM, showing the robust and stable berms around the three stabilization ponds. As mentioned in previous inspection reports, these ponds were associated with the exploration phase of the mine and currently serve as emergency holding ponds in case problems would arise, which would prevent the discharge of treated effluent directly to the receiving environment. The robust, stable berms around the ponds generally comprise granular materials (rock fill, sand, and gravel), with high density polyethylene (HDPE) geomembrane liners. No damage is visible on the membranes in the cells or on the upstream face of the slopes (see Figures 13 to 15).

A relatively common issue in water storage ponds is the appearance of so-called “whales”. Whales are sections of the liners which have risen (float) above the surface of shallow water, particularly in shallow ponds, where the weight of water above the liner is minimal. There are no concerns associated with the observed whales. Such “whales” were visible during previous inspections in both PWS-2, and PWS-3 ponds and similar “whales” were noticed during the recent (July 2025) inspection in both ponds, as shown in Figure 14; however, no damage to the liner or seepage from the ponds was noted.

2.2 Hazardous Waste-Cell Berms (HWB-1 to HWB-7)

There are seven (7) lined hazardous waste storage cells with stable perimeter berm structures at the Mary River mine site, HWB-1 to HWB-7. The HWB-6 cell is located at the north side of the airstrip near the incinerator, while the other six (6) cells are located at the south side of the airstrip, as shown in Figure 8. All seven (7) HWB cells are lined with HDPE liner, and comprise shallow, stable perimeter berms constructed from locally available, generally granular, thaw-stable soils. There is no visible instability at any of the berms (sloughing, excessive settlement, or tension cracks), other than some minor surface disturbance/soil displacement caused by foot and truck traffic on the surface of the slopes and crests at a few locations, as shown in the relevant images in Appendix A. It is recommended that foot and truck traffic on the slopes and crest of the berms be limited to maintain the integrity and stability of the berms. Trucks may only use the designated entry/exit ramps to access the cells, and those ramps should be frequently maintained. Furthermore, no waste materials should be placed on the slopes or crest of the berms, they must be stored within the cells only.

a) HWB-1

As shown in Figure 16, this cell is currently empty and has not been used for years. Concerns have been raised in the past that there is potential liner damage within this cell, and consequently no material has been stored in the cell since the concern was raised.

b) HWB-2

As shown in Figure 17, this cell is currently empty, except some debris left in one corner of the cell that should be removed. There are robust, stable berms around the cell. One shipping container was also left on the access ramp to the cell, which container must also be removed or moved into the cell from the berm/ramp.

c) HWB-3 and HWB-4

These cells were constructed as “twin-cells” and were called “fuel containment” cells. As shown in Figures 18 and 19, both cells hold a few fuel barrels, stored on wooden pallets (jet-fuel and diesel). The berms and liner around and within the two cells are in good condition and no seepage from either of the cells was noted during the July 2025 inspection. The broken wooden pallets and other debris should be removed from the cells and from the crest and slopes of the berms

d) HWB-5

As shown in Figure 20, this cell is currently empty and has not been in use for years. The shallow berms around the cell appear to be stable, although the result of some surface erosion on the slopes is visible. No ponding water is visible in this cell indicating potential liner damage. As mentioned earlier for HWB-1, these two cells (1 and 5), together with cell 2, could be reconstructed as one large new cell with new berms and liner, should additional storage requirements for hazardous waste would become necessary at the site. The existing granular material from the current berms could be reused for the construction of new berms around a new enlarged cell, if so decided. However, the new cell would require the installation of new HDPE liner.

e) HWB-6

The stable berms around this cell and the internal “floor” of the cell have been regraded and stabilized recently using clean granular fill, as shown in Figure 21. The cell was generally filled to its capacity in the past; however, this year only limited quantity of waste material was stored in the cell, as shown in the image. No damage to the liner was noted during the field inspection in the cell and the access ramp is maintained in good condition.

f) HWB-7

One (1) large fuel tank is stored in this cell together with hydrocarbon products in large number of containment totes, as shown in Figure 22. The perimeter berm around the cell appears to be stable and the ponding water within the cell is indicative of adequate liner performance.

In the 2024 inspection report it was recommended that the level of ponding water in this cell should be monitored closely, and some of the water should be removed to prevent the potential for uncontrolled release of the water from the cell. Following that recommendation, a mobile treatment plant is now operated adjacent to the cell and the water level is well controlled in the cell, as shown in Figure 23.

2.3 MS-06, MS-07, MS-08 and MS-11 Surface Water Management Ponds

a) MS-06 – Surface Water Management Pond Adjacent to the Crusher Pad

The MS-06 surface water management pond collects surface water from the area of the crusher pad. The surface water is collected in side-ditches around the crusher pad and conveyed into the MS-06 pond. One of the culverts (culvert A, marked in Figure 2) is located under the adjacent road at the crusher pad entrance and connecting one of the side ditches with the north corner of the MS-06 surface water management pond. The discharge end of the culvert appears to be well maintained (Figure 24); however, the intake end of the pipe is partially clogged, as shown in Figure 25. That end of the culvert should be cleaned as soon as practically possible to facilitate uninterrupted flow of water through the pipe. The liner within the pond and on the upstream slopes of the stable perimeter berm appears to be intact, shown in Figure 26.

A second culvert (culvert B, marked in Figure 2) is located near the south-east corner of the pond, within another drainage ditch. As shown by the yellow circle in Figure 27, this culvert is damaged and clogged, preventing the collected water from the upstream section of the ditch reaching the MS-06 pond. As recommended in earlier reports as well, this culvert should be replaced or restored to pass water effectively. Alternatively, this culvert could be removed permanently and the slopes of the ditch reinstated.

b) MS-07 – Surface Water Management Pond Adjacent to the KM-106 Stockpile

The MS-07 surface water management pond is located adjacent to the KM-106 ore stockpile area. The pond has robust, stable perimeter berm and intact geomembrane liner, as shown in Figure 28. No stability or seepage related problems were observed at this pond during the July 2025 site visit.

The area previously considered as a potential rock quarry is now serving as an ore stockpile site, located south of the open pit along the east side of the mine haul road (MHR). Most of the surface water from the stockpile area is diverted to the adjacent MS-07 pond, while some of the run-off water is collected in an adjacent drainage ditch/swale and a sump and pumped from the sump into the MS-07 pond.

c) MS-08 – Surface Water Management Pond Adjacent to the Waste Rock Facility

Waste rock from the open pit mining operation is disposed of in the waste rock storage facility (WRSF), which consists of waste rock piles, the MS-08 surface water management pond, and the continuously upgraded drainage ditches, excavated along the east and west sides of the facility. Surface runoff and seepage from the WRSF is collected in those ditches (east and west) and conveyed to the MS-08 pond. The MS-08 surface water management pond is bounded by robust and stable berm, and the pond is lined with HDPE liner that is secured in place in anchor trenches and extending down into the permafrost.

During the July 2025 inspection, the MS-08 pond still had some ice in the water, as shown in Figure 29. Water from the MS-08 pond can be pumped to the nearby designated facility for treatment, if required. There is a lined treatment cell (geotube pond) located immediately next to the WRSF water treatment plant (Figure 31).

As shown in Figure 31, the berm around the geotube pond has recently been reconstructed and a new geomembrane liner was installed within the pond, all in excellent condition. The currently empty geotubes are visible on the floor of the lined cell.

Figure 30 shows a somewhat settled zone of the berm around the MS-08 pond (lower crest elevation), where two pumps are installed/operated during limited periods of the year to control the water level within the MS-08 pond. As shown in the image, the anchor trench of the liner along the upstream edge of the berm is still in its original position/elevation without any sign of settlement/displacement along that line. The crest of the berm along its travelled zone; however, shows sign of increased settlement at this short section of the berm (marked in Figure 3 as well). It is assumed that the settlement in this area is a result of the increased static load applied by the heavier trucks delivering the pumps to this location. The traffic on the berm around the pond generally comprises light pickup trucks, resulting in generally elastic response under the dynamic limited wheel load. However, heavy trucks that deliver the pumps to the settled zone of the berm and applying static load for longer periods of time, have resulted in more visible permanent deformation of the berm. Along the settled zone, the crest of the berm should be raised back to its original elevation by placement of crushed aggregate/rock fill.

d) MS-11 – Surface Water Management Pond at KM105

The KM105 surface water management pond (MS-11), shown in Figure 5, was designed (KM105 Sedimentation Pond Design Brief and Issued for Construction Drawings – Knight Piésold Ltd. 2021), and constructed to provide sediment control for runoff water originating from the following catchment areas:

- The undisturbed areas upslope of the KM105 ponds from which runoff cannot be easily diverted to other areas,
- The section of the transportation road near the ponds, and
- The area of the ponds (north and south) themselves.

The design of the pond's main dam included an emergency spillway with an invert-elevation of 220.5 m, which is the design (theoretical) maximum water level in the MS-11 pond. At normal water level the pond has two separate (but connected) areas: the "north and south ponds", as shown in Figure 5. As specified in the 2021 KP design documents, the upstream slopes of the main dam and sections of the side slopes within the north and south ponds are lined with HDPE geomembrane, placed between two layers of non-woven geotextile, gravelly sand base and cover layers, and topped with a layer of crushed rock riprap for erosion protection. On the side slope of the south pond, the geomembrane liner and non-woven geotextiles extended up to the top of the slope of the embankment and were anchored into an anchor trench at the crest.

During the filling of the ponds with runoff water, around June 11 and 12, 2022, sliding of the cover layers and the safety berm was noted along the crest of the embankment at the south pond. Visual inspection of the area confirmed that only the cover layers and the road's safety berm have moved in June 2022, and there was no "classical" failure visible along the slope. It appears that the embankment beneath the liner is stable, and the anchor trench is still in its original position along the edge of the crest, supporting the liner. A few weeks after the slipping of cover layers in the south pond, the water level in the ponds (north and south) had dropped drastically overnight of July 14-15, 2022, when the stored water from the ponds had found its way beneath the main dam, assumingly within the overburden, and was released/discharged somewhat away from the downstream toe of the main dam. Following the seepage problem beneath the main dam, attempts had been made to "seal" the overburden by grouting, unfortunately without success.

The images in Figures 32 and 33, taken during the recent site visit on July 2, 2025, show the downstream side and toe of the spillway of the main dam. The yellow circles in the images show the location of the discharge "boiling" point of seepage water, which is the result of "piping" beneath the dam. The enlarged image in Figure 34 shows the discharge of seepage water from the generally granular overburden. Some finer soil particles (silt and clay) are visible around the discharge "boiling" point. Piping is a type of internal erosion where water, under pressure, forces its way through the dam's foundation and potentially carrying finer soil particles with it and creating seepage channels within the soil layers beneath the dam. This process usually leads to the formation of "sand boils" or "silt volcanoes" at the discharge point of the seepage water, as shown in Figure 34. Based on visual observation, the quantity of the discharged finer soil particles appeared to be somewhat limited and during the 2025 inspection the discharged water was "clean" (not muddy), as shown in the image.

Figure 35 shows the side ditch along the haul road, with muddy surface water flowing into the KM-105 ponds. In order to capture/settle most of the suspended solid from the run-off water within the south pond, a "proof of concept" filter berm was constructed by BIM within the south pond (Figure 36), at the location shown in Figure 5 (blue line). The filter berm was constructed using crushed rock fill and geotextile. As shown in Figure 37, the filter berm appears to be working as intended and improving the clarity of water filtering through the berm.

2.4 Berm of the Cell for Generator Fuel Bladders

This cell has previously contained fuel bladders for the generators; however, it was almost empty during the July 2025 site visit, except three grey fuel barrels stored in one of the corners of the cell. As shown in Figure 38, the stable perimeter berm around the cell generally comprises granular materials and the cell is lined. Ponding water within the cell indicates good liner performance.

2.5 Fuel Storage Berms (3)

There are three (3) fuel storage facilities at the Mary River mine site. One (1) is located at the airfield and two (2) adjacent to the main office complex of the mine site, as shown in Figures 2 and 6. The berms and liners at these facilities are in excellent condition, as shown in the relevant images in Appendix A.

a) Jet-fuel Tank Farm

The jet-fuel tank farm is located adjacent to the airfield, and it is bounded by a stable perimeter berm, as shown in Figure 39. In addition, a second berm, constructed from crushed rock fill, provides additional protection at two (2) sides (Tote Road and airport parking area) of the facility. The jet-fuel farm is lined to the crest of the perimeter berm, and the liner within the cell appears to be in good condition.

b) MS-03 Diesel Fuel Tank Farm

The robust, stable perimeter berm around the MS-03 diesel fuel tank farm is in excellent condition, as shown in Figure 40, and it is well maintained. Some ponding water within the cell indicates that the liner system is fully functional (i.e., no seepage from the cell is visible and the liner is well protected by granular fill throughout the cell). The image in Figure 40, also shows crushed rock fill placed on the downstream slope of the berm along the adjacent road, for additional protection against erosion.

c) MS-03B Fuel Tank Farm

A large capacity fuel tank farm is located adjacent to Tote Road, as shown in Figure 41. This tank farm was constructed as specified in design drawings (subgrade, berms, bedding layer, liner, and protective cover). Based on site observations during the July 2025 visit, the liner in the facility appears to be intact, and the perimeter berm is stable and well maintained.

2.6 Solid Waste Disposal Area and Two Lined Landfarm Cells

The fenced, non-hazardous solid waste disposal area is in the southern zone of the Mary River Mine site, as shown in Figures 7 and 42. The facility currently covers an approximate area of 11,000 m². In the original design (Knight Piésold, 2008), the facility included three cells with two layers of waste and a final cover layer with the total thickness of 4.6 m (2+2+0.6 m). As shown in Figure 42, the facility is getting filled to its initially planned capacity; however, up to 3 additional landfill cells have been approved and could be constructed in the near future to increase capacity. Figure 42 shows that only non-hazardous solid waste is deposited into this unlined landfill facility and that the site is surrounded by a chain-link fence and a lockable gate.

Two (2) lined landfarm cells were constructed in 2021 near the gate of the main landfill facility, as shown in Figure 43. It is understood that the number of lined landfarm cells may be increased to three (3), once the other two would be closed. Based on relevant documents prepared by Knight Piésold Consulting Engineers (KP), the landfarm cells (1 and 2) were designed as above-ground structures to avoid disturbing permafrost. According to the KP design documents, the berms for the two completed cells were constructed using 100mm minus granular material and covered by 150mm thick 25mm minus clean sand and gravel. The bedding layer was installed as a cushion layer to the 60 mil (1.5 mm) thick HDPE geomembrane, which is used to prevent any potential contact water from seeping into the subgrade and berms and escaping the containment system. The liner is covered with 300 mm thick, clean sand and gravel layer in the cells (floor and side-slopes). All liner-edges are anchored into a 300 mm x 300 mm key trench, located along the top of the berms.

Figures 43 and 44 show the robust stable berms around the two landfarm cells. During the July 2025 inspection it was noted that the currently empty cell #2 (no waste disposed in the cell) was flooded with ponding water (melted snow and rainwater). This indicates good liner performance; however, the water should be removed and properly disposed of prior to storing any waste material within the cell.

2.7 QMR2 Rock Quarry – Drainage Conditions

There is no activity (blasting and crushing) carried out currently in the QMR2 rock quarry. The exposed slopes (rock face) within the quarry appear to be in stable condition overall, with a few localized fall hazards (loose boulders) noted at the upper and lower levels of the quarry in some areas. However, as mentioned in earlier inspection reports, the lowest plateau (main level) of the quarry still exhibits somewhat poor surface water control and therefore periodic ponding water (rainwater and melted snow) still covers a section of the quarry's lower level, as shown in Figures 45 and 46. The ponding water is generally flowing uninterrupted along the side of the access road, still eroding the edge of the road and initiating erosion and some settlement of the road embankment, as shown in Figure 47.

As pointed out in earlier reports, the uncontrolled surface water presents not only potential slope stability issues in the area, but also traffic safety issues as well, particularly during freezing periods. If the operation in the quarry were to resume, the surface water at the quarry's main level should be collected in drainage ditches and sumps excavated at strategic locations, and then properly drained from the sump(s) down on the side-slope of the plateau to maintain traffic safety and stable slopes.

3.0 Milne Inlet Port Site

3.1 Hazardous Waste-cell Berms (HWB-1 to HWB-4)

There are four (4) hazardous waste disposal cells, three (3) still active and one (1) decommissioned, with stable perimeter berms at the Milne Inlet Port site. HWB-1 (active) and HWB-2 (decommissioned) cells are single detached structures, located north-east and south-east of the MP-03 fuel storage area, respectively. HWB-3 and HWB-4 (active); however, were constructed as twin-cells, located south/south-west of the fuel storage area, as shown in Figure 10.

a) HWB-1

The HWB-1 is the largest cell of the four, bounded by stable perimeter berm, constructed of thaw-stable granular soils, as shown in Figures 48 and 49, in Appendix B. Seven shipping containers, fuel barrels and other materials are stored in the cell, generally on wooden pallets, as shown in Figure 48. Ponding water was visible in the rear sump area of the cell (Figure 49), indicating that the liner within the cell is intact and working as intended.

No seepage from the cell was visible around the downstream toe of the perimeter berm and the granular fill, covering and protecting the liner across the cell's interior, is well maintained. Materials on pallets should be stored within the cell, not on the slopes and crest of the berms.

b) HWB-2

The HWB-2 was a small waste storage cell that is no longer in operation. As mentioned in an earlier report, that cell was completely decommissioned, and the area has been re-graded with clean aggregate and the area is now used for other purposes.

c) HWB-3 and HWB-4

The well-maintained HWB-3 and HWB-4 cells are located immediately next to each other (twin-cells), as shown in Figures 50 and 51. These cells contained only shipping containers in the past; however, the cells have been recently emptied and “refurbished”. Currently the cells contain fuel barrels on wooden pallets, with only one (1) shipping container stored in HWB-4. The lined stable berms around and between the cells and the interior surface have been re-graded/raised and appear to be in good condition with no indication of slope movements or seepage.

3.2 MP-01A Polishing Waste Stabilization Pond (PWSP)

The MP-01A polishing pond is located immediately south of the MP-03 fuel storage facility. As shown in Figure 52, the robust, stable perimeter berm around the pond is in excellent condition and the liner within the cell appears to be intact. No sign of slope instability, settlement or seepage from the pond was noted during the field inspection.

3.3 MP-03 Fuel Tank Farm

The MP-03 fuel tank farm occupies a large area in the center of the Milne Inlet Port. As shown in Figure 53, the facility is well maintained and the perimeter berm around the site is in excellent condition. The usual ponding water in the facility was removed recently and hence, no ponding water was noted in the facility during the 2025 inspection. The site is fenced in, and no indication of instability or seepage was noted at and around the robust berm at this facility.

3.4 MP-04 and 04A Landfarm and Contaminated Snow Disposal Cells

The MP-04 landfarm is in the southern zone of the Port at higher elevation (on the top of a hill), adjacent to the Q01 rock quarry. It is a large cell that stores potentially contaminated soils, as shown in Figure 54. The lined, robust perimeter berm around the cell is in stable condition and the ponding water in one (1) corner of the cell (sump) indicates good liner performance. No wet downstream slopes or toe seepage were noted during the July 2025 site visit.

The MP-04A is a smaller cell, constructed immediately adjacent to cell MP-04 and is used generally for the disposal of contaminated snow. This pond is also bounded by a robust stable perimeter berm, as shown in Figure 55. No seepage from the cell was noted anywhere around the downstream toe of the berm, and the ponding water within the cell indicates that the liner is in good condition. As requested in an earlier report, an additional protective layer of sand and gravel fill was placed over the liner at the access ramp, which is in good condition.

3.5 Surface Water Management Ponds (Surface Water Management Pond #3, MP-05, MP-06 and MP-06A Ponds)

The iron ore that is mined, crushed, and screened at the Mary River Mine site is transported to Milne Inlet Port, and stockpiled across a large area near the ship-loader. Contact water (rainwater and melted snow) from the area is collected along the west and north sides of the ore stockpiles in side-ditches and conveyed into four (4) surface water management ponds (pond #3, MP-05, MP-06 and MP-06/A), strategically located around the ore storage area, as shown in Figure 9.

a) Surface Water Management Pond #3

Surface Water Management Pond #3 is located west of the ore storage area, as shown in Figure 9. The pond is bounded along three (3) sides by lined stable berm (Figure 56) and contains two (2) sumps. The geomembrane liner and protective geotextile on the internal slope of the berms were designed to extend 2.5 m below the base of the pond and are anchored into the underlying permafrost zone to prevent any seepage from the pond into the ground below and to the surrounding environment. Based on observations during the July 2025 inspection, the berms and liner are in excellent condition. Excess water from the pond is frequently pumped into the nearby, large capacity MP-06 surface water management pond, whenever necessary.

b) MP-05 Pond

The MP-05 surface water management pond is located adjacent to the north-east corner of the ore stockpile, while the MP-06 and MP-06A ponds were constructed at the north-west corner. The three ponds are in excellent condition with stable, well-maintained berms and intact geomembrane liners, as shown in Figures 57 to 60. Only minor damage was noted in the liner at the intake channel to the MP-05 pond, as shown in Figure 58. The damage should be repaired as soon as practically possible.

No instability, erosion or settlement was noted at the robust berms of the MP-05 pond and no toe seepage from the pond is visible anywhere around the pond's perimeter berm, as shown in Figure 57. The surface water from the ore stockpile is collected in well-maintained, clean drainage ditches, including the well-maintained east ditch.

c) MP-06 and MP-06A Ponds

The large "twin" surface water management pond adjacent to the north-west corner of the ore stockpile area is divided into two (2) cells (MP-06 and MP-06A) by a liner-covered internal berm. The main (south) part of the pond is called MP-06 and is shown in Figure 59. The northern cell is called the "overflow pond" MP-06A, shown in Figure 60. The liner in the ponds and the stable, robust perimeter berm are in good condition, and no seepage was noted from the ponds, indicating good liner performance.

3.6 Q01 Rock Quarry – Drainage Conditions

No activity was noted in the Q01 rock quarry at the time of the July 2025 inspection. In 2023, a large area of the quarry's lower level was covered with ponding water, indicating poor surface water control at the main level of the quarry. The drainage situation has been partially rectified in 2024 by the placement of granular fill (crushed aggregate) across the lower level of the quarry and raising the ground elevation somewhat. As shown in Figures 61; however, the drainage of the collected water from within the voids of the large granular fill pad into the nearby ditches has not been solved, and hence, ponding and flowing water on the surface of the new pad are still visible in many areas. It is suggested that additional drainage ditches be provided within the new fill pad (around its perimeter at strategic locations), to improve the control of surface water in the area. The collected water from those additional ditches should be drained/conveyed into the nearby P-SWD-5 drainage ditch, which also requires improvement.

As shown in Figures 62 and 63, a section of the P-SWD-5 ("Q01-North") ditch is missing riprap cover along a section of the quarry's main level. As pointed out in earlier reports, it appears that there is continuous subsurface water seepage from within the adjacent granular pad of the quarry's main level at that location, resulting in periodic sloughing/erosion of the quarry side of the ditch just along this short section shown in the image. It is recommended that the somewhat finer soil, currently forming the side of the ditch, be removed to a depth/width of around 1 m and replaced with crushed rock fill. To minimize migration of fine soil particles from the quarry's granular pad to the ditch, the crushed rock fill should be placed over a layer of geotextile fabric. The improvement of this section of the ditch shall be completed with the formation/excavation of additional drainage ditches, required to rectify the ponding water issue that is present in many parts of the lower (main) level of the quarry, as pointed out above. Figure 62 also shows a clogged, undersized culvert under the access road to the quarry in this P-SWD-3 ditch. The clogged, undersized culvert should be removed and replaced with a larger diameter pipe at this location.

3.7 The Haul Road and Permafrost

The drainage condition along the haul road between the crusher pad and the open pit was discussed in previous years' reports. It was pointed out in WSP's 2023 inspection report and confirmed in the 2024 report that the drainage condition along the haul road between the crusher pad and the open pit was significantly improved to control potential surface erosion, to minimize the impact on the near surface zone of the permafrost, and to prevent any slope instability in the vicinity of the road alignment. The improvement included upgrading the side ditches along the uphill side of the haul road and the formation/construction of whoa-boys and cross ditches to capture surface water (run-off) flowing on the surface of the wide haul road and divert the water from the road to the side ditches.

Locally concentrated, uncontrolled run-off may result in potential erosion problems during the summer months, when the air temperature is rising above zero degree Celsius, particularly in ice-rich soils within the active layer and the upper zone of the permafrost beneath the road and side-slopes.

However, based on borehole results across the project area and field observations, only pore and some segregated ice appear to be the predominant ice formations within the relatively thin overburden in the Mary River area at higher elevations, particularly along the haul road. The borehole results had confirmed that the native overburden along the haul road is generally thin and comprising thaw-stable, generally drained and predominantly granular materials and therefore no weak, thaw-unstable or compressible soils are present within the overburden along the haul road.

It shall be pointed out that the thermal regime in the active layer and the underlying permafrost depends mainly on the thermal properties of the soils and the interaction between the atmosphere and the ground. Thermal disturbance of the permafrost foundation may lead to instabilities in the road embankment, ranging from longitudinal cracks at the embankment surface to lateral spreading of the side slopes. However, no such disturbances are visible along the haul road, simply because the road was constructed over thaw-stable materials along its alignment and the drainage of surface water is well controlled by ditches and berms. The same observation was noted practically along the entire Tote Road between the Mary River Mine and Milne Inlet Port sites.

Wedge and buried ice formations appear to be found at lower elevations at limited locations and in deeper boreholes only, therefore the impact of road infrastructure and run-off water on the permafrost zone is concentrated to limited number of locations along the Tote Road. Note that the Mary River project is in the northern area of the continuous permafrost zone, where the thickness of the permanently frozen ground is several hundred meters. The active layer, which is the top layer of the ground above the permafrost mass, that thaws each summer and refreezes each fall until the next summer, is thin in the entire Mary River project area, generally less than 1.2 m.

As pointed out in our previous inspection reports and would confirm in this current report as well, thawing of the upper zone of the permafrost may be caused:

- By natural climatic cycles which can increase the temperature of the ground near the surface causing the upper zone of permafrost to thaw/melt (resulting in the variation in thickness of the active layer and potential damage to infrastructure in certain areas, where thaw-unstable soils are present).
- Indirectly by human activity through changing climate or warming of ground over time due to the construction of heated infrastructure components like buildings.
- Directly by human activity through disturbance of the upper zone of the ground, like large and potentially deep excavations (open pits, for example). When the active layer is disturbed or removed, the exposed permafrost (immediately beneath the active layer) will begin to thaw/melt. Such activity can be excavation/cut of zones along roads (transportation corridors), or excavation of ponds (solid and liquid waste management), or by the installation of culverts over thaw-unstable subgrade soils.

During the 2024 inspection one of these potential hazards (culverts on thaw-unstable soils) was noted at two locations only, along the entire Tote Road between Mary River and Milne Inlet Port. Hence, the actual extent of such potential problems, listed above, is negligible along the road.

The reason for this is the fact that the Tote Road between Mary River and Milne Inlet Port was constructed by generally following the original topography and within the narrow, 30 m wide road alignment right-of-way (ROW) to minimize costs and the impact on the permafrost. As pointed out in the 2019 Tetra Tech report, material for the construction of generally shallow road embankments was sourced from within the active layer and comprised thaw-stable, generally granular materials. Instead of cutting deeper into the permafrost at limited sites, the fill materials were obtained from about 90 widely spaced areas, where the cut into the ground (into the permafrost with potentially greater ice content) was limited.

In summary, the impact of road construction and its operation on the permafrost between Mary River and Milne Inlet Port is low and generally occurred during construction. Current, potentially adverse effects can be attributed to poor surface water and erosion control along the sides of the road at a few limited locations only. These deficiencies can be individually rectified by the installation of appropriate culverts and by implementing efficient surface water control in areas where large, trapped ponding water areas become visible along both sides of the road during the early stage of the short thaw period of the years.

Culverts on permafrost foundation at the base of an embankment generally meet the conditions of strength and deformability under the loads from the weight of the embankment soil, and the load from the trucks traveling on the road above the culverts. Problems usually arise when culverts are installed over ice-rich, thaw unstable soils, followed by the construction of the road embankment. Such somewhat problematic locations were noted at the twin culverts at KM 33+100 and at the five culverts at KM 80+500. It was noted during the 2024 field inspection that the native subgrade in the areas of those culverts generally comprise fine-grained, ice-rich soils, that were becoming unstable during thawing, resulting in significant differential settlements of structures or culverts constructed/installed above them.

As pointed out in our 2024 technical report, it is known that there are temperature variations in the longitudinal direction of culverts and therefore the thickness of the frozen or thawed ground around and beneath culverts will vary in the longitudinal direction. This can potentially cause uneven frost-heave related movements (during winters) or thaw settlement (during summers) of the culverts and consequently, decrease structural stability of the road embankment above the culverts, may endanger traffic safety and damage the drainage system around the embankment. As discussed in the 2024 inspection report, the twin and five culverts at the two locations have suffered noticeable differential settlements and heave, and they are still not able to function as culverts (no or minimal water is flowing through them). It is recommended that these culverts be removed and replaced with new culverts. During removal of the culverts, the ice-rich, thaw-unstable subgrade soils from beneath the culverts must also be removed to a depth of around 1.5 m below the pipes' invert level and replaced with thaw-stable, compacted granular fill. The new culverts will need to be installed over the improved subgrade, to prevent differential settlements and heave of the culverts in the future.

4.0 Conclusion

WSP Canada Inc., has completed the required geotechnical site inspection of 2025 at the Mary River Project in Nunavut. Based on field observations, the condition of the inspected infrastructure components can be summarized as follow:

- The surface water management ponds and waste disposal areas are enclosed by relatively shallow, stable, in many cases robust, perimeter berms. The berms show no signs of instability, there are no tension cracks or excessive settlement, and no detrimental slope erosion is visible on the berms. These structures were constructed by using thaw-stable, generally granular, locally available materials, placed over thaw-stable foundation soils. Foot traffic on the berms (crest and slopes) must be minimized, while truck traffic on them must always be avoided.

Wherever truck traffic into the cells is necessary to move waste materials, ramps are provided, and those ramps shall be maintained in good condition at all times. No materials shall be stored on the slopes or crests of the berms; they must be placed inside the cells. Some debris were noted (generally broken wooden pallets) in a few cells, which debris should be removed during maintenance work.

- The waste storage cells, and surface water management ponds comprise HDPE/LLDPE liners, which are in good condition. No seepage from the currently operating ponds and cells was noted during the July 2025 inspection. Only minor damage was noted in the liner at the intake channel to the MP-05 pond in the Port, which damage should be repaired as soon as practically possible.
- Other (returning) problem areas are the lower levels of the rock quarries both in Mary River and Milne Inlet Port sites. In the port the overall surface water control shall be reevaluated, and the drainage problems be solved as suggested in earlier geotechnical inspection reports. Installation of new culverts, improved drainage ditches may need to be included in the review and new design in the port's quarry.
- The MS-11 surface water management ponds (north and south) at KM-105 in Mary River, were designed and constructed to provide sediment control for runoff, originating from large areas along the mine haul road. Soon after the completion of the dam and slopes, the collected water from the pond has found its way bypassing the liner at the main dam (north pond) and seeped toward downstream beneath the dam.

In order to capture/settle most of the suspended solid from the run-off water within the south pond, a trial filter berm was recently constructed by BIM within the south pond. Based on observations during the recent site visit, it appears that the seepage water past the filter berm is relatively clean and hence, the filter berm has positive impact on surface water management in the pond. It is understood that BIM will implement additional features in the near future to further enhance water quality exiting the facility. The types and effectiveness of these planned features will be reviewed and commented during the 2026 inspection.

5.0 Closing Remarks

We trust that the above technical report and its appendices provide you with satisfactory information in connection with the reviewed infrastructure components at the selected sites of the Mary River Project. Should you have any questions regarding this report, please do not hesitate to contact our office.

Sincerely,

WSP Canada Inc.

Prepared by:

A handwritten signature in blue ink that reads "L. Bodi".

Laszlo Bodi, M.Sc., P.Eng.
Senior Principal Geotechnical Engineer
Tel: +1 647 824-0549
laszlo.bodi@wsp.com

Reviewed by:

A handwritten signature in black ink that reads "M. Davachi".

Mickey Davachi, Ph.D., P.Eng., BC.GE, FASCE
Fellow Geotechnical Engineer
Tel: +1 368 886 3331
mickey.davachi@wsp.com



Baffinland Iron Mines Corporation

August 29, 2025
Project #: CA0055338.6747

Annual Geotechnical Inspection – 2025
APPENDIX "A" - Mary River Mine Complex - Photographs
Figure 12 to Figure 47



Aerial view of the Central Zone of Mary River – Source: Google Earth

Table of Contents

	Page
2.0 Mary River Mine Complex	3
2.1 Polishing Wastewater Stabilization Pond Berms (3 PWS ponds)	3
2.2 Hazardous Waste Disposal Cell Berms (HWB-1 to HWB-7).....	5
2.3 MS-06, MS-07, MS-08, and MS-11 Surface Water Management Ponds and Ditches.....	9
2.4 Generator Fuel Berm	16
2.5 Fuel Farm Berms	16
2.6 Solid Waste Landfill Facility and Lined Landfarm Cells.....	18
2.7 QMR2 Rock Quarry – Drainage Conditions.....	19

2.0 Mary River Mine Complex

2.1 Polishing Wastewater Stabilization Pond Berms (3 PWS ponds)



Figure 12: Historic image of the three PWS ponds (1 – 3) with robust, stable berms near the historic exploration camp. – Source: BIM



Figure 13: PWS pond #1. Well-maintained, stable perimeter berm and intact liner at the pond (July 2025).

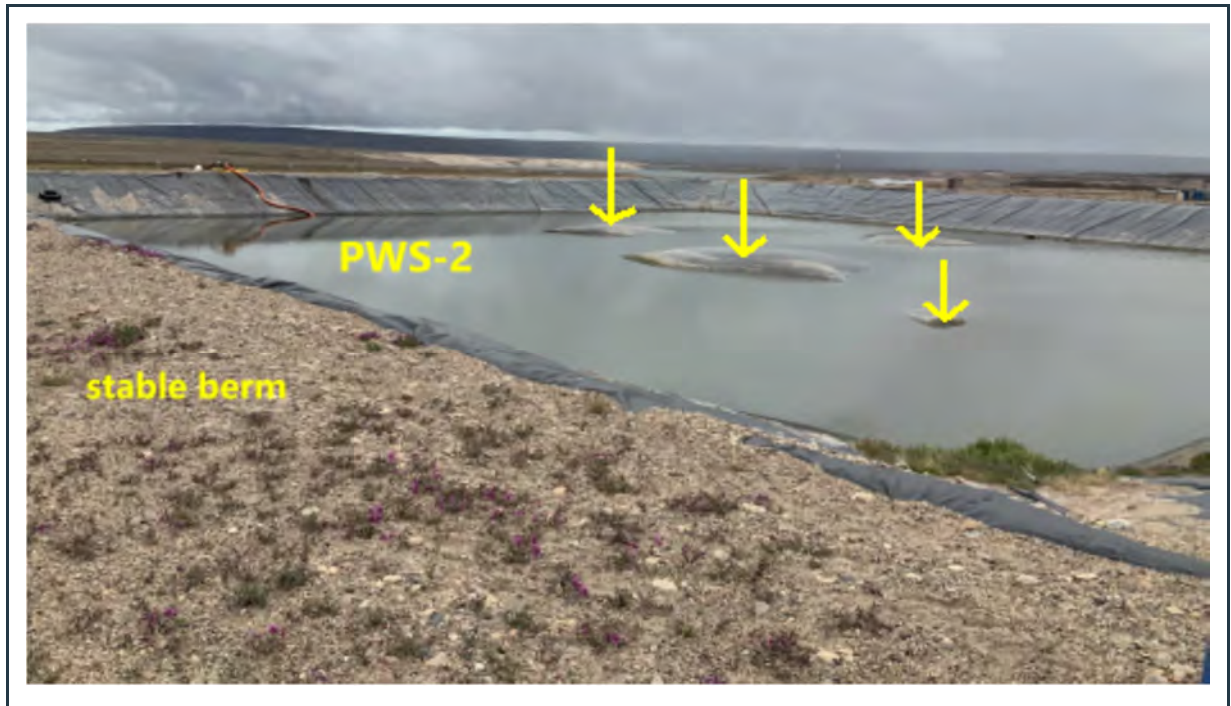


Figure 14: PWS pond #2 with stable, well-maintained berms and liner. – Sections of the liner (“whales”) are visible in the pond above the water (yellow arrows), which do note pose a risk to the integrity of the liner.

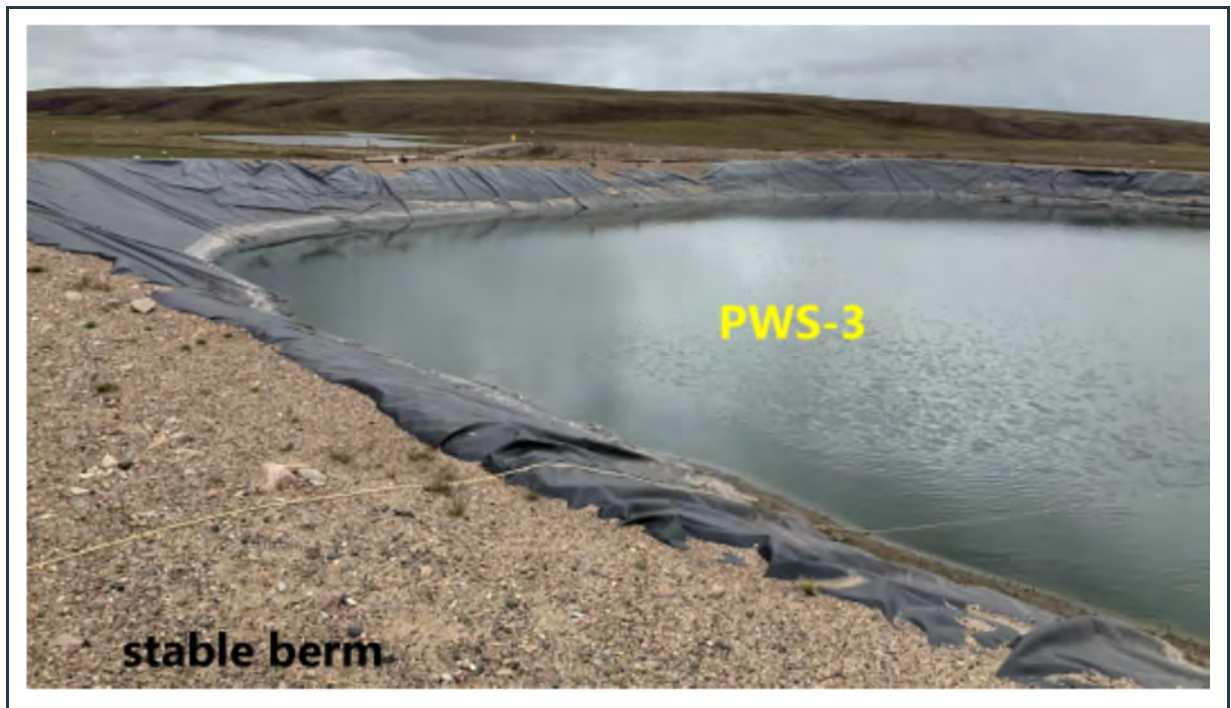


Figure 15: Robust, stable perimeter berms and intact liner at the PWS-3 pond.

2.2 Hazardous Waste Disposal Cell Berms (HWB-1 to HWB-7)

a) HWB-1



Figure 16: View of the berms around the empty HWB-1 cell, which has not been in use for years.

b) HWB-2



Figure 17: View of the stable berms around the currently empty HWB-2 cell. Debris from the cell (yellow circle) should be removed.

c) HWB-3 and HWB-4



Figure 18: View of stable berms around HWB-3. The broken wooden pallets and other debris should be removed from the cell and from the berms.



Figure 19: View of the stable berms around the HWB-4 cell, with a few fuel barrels stored on wooden pallets in the cell. The debris, visible in the cell should be removed.

d) HWB-5



Figure 20: View of the empty HWB-5 cell, which has not been in use for years (like the adjacent HWB-1).

e) HWB-6



Figure 21: View of the stable berm around the HWB-6 cell, near the incinerator.

f) HWB-7



Figure 22: View of the stable berm around the HWB-7 cell, with an old fuel tank and oil filled plastic containers stored in the cell. The ponding water indicates good liner performance.



Figure 23: View of the stable berm around the HWB-7 cell, with an old fuel tank and oil filled plastic containers stored in the cell. Note the mobile water treatment unit in operation adjacent to the cell.

2.3 MS-06, MS-07, MS-08, and MS-11 Surface Water Management Ponds and Ditches

a) MS-06 – Surface Water Management Pond Adjacent to the Crushing Facility



Figure 24: View of the discharge end of the recently cleaned culvert, draining the collected surface water from the crusher pad area to the MS-06 pond. See culvert A in Figure 2 for location.



Figure 25: View of the partially clogged intake end of the culvert (yellow circle), shown in Figure 24. This end of the culvert should be cleaned as soon as practically possible.



Figure 26: View of the robust, stable berm around the MS-06 pond, with intact liner.



Figure 27: View of one of the side-ditches and a culvert leading to the MS-06 pond. As shown by the yellow circle, the culvert is damaged and clogged and should be replaced. Alternatively, the culvert could be removed permanently and the ditch opened for easy flow. See culvert B in Figure 2 for location.

b) MS-07 – Surface Water Management Pond Adjacent to the new KM106 ore storage



Figure 28: View of the robust, stable perimeter berm and intact liner at the MS-07 surface-water management pond at KM106.

c) MS-08 pond and drainage ditches next to the waste rock facility



Figure 29: View of the stable, robust berm and intact liner at the MS-08 pond.



Figure 30: View of a settled zone of the berm, where two pumps are located. The anchor trench of the liner is still in its original position. The crest of the berm along this zone should be raised to its original crest elevation by crushed aggregate.



Figure 31: View of the refurbished perimeter berm and new liner at the geotube pond, located adjacent to the water treatment plant.

d) "MS-11" surface water management pond at KM105, with emergency spillway.



Figure 32: View of the downstream side of the spillway at the main dam of the KM105 sedimentation control pond. The presence of water at the toe is the result of "piping" beneath the dam. See the enlarged image of the location marked by the yellow circle in Figures 33 and 34.



Figure 33: View of the location of "boiling" seepage water at the downstream toe of the spillway of the main dam at MS-11.



Figure 34: View of boiling water at the downstream toe of the spillway of the main dam at MS-11.



Figure 35: View of the side-ditch along the haul road draining surface water into the MS-11 sedimentation control pond. Note the muddy water in the ditch, entering the pond.



Figure 36: View of the new filter berm and sliding of the cover layers above the liner in the MS-11 south pond (image was taken in July 2025). See Figure 5 for the location of the new filter berm within the south pond.



Figure 37: View of the "clean" surface water past the new filter berm in the south pond.

2.4 Generator Fuel Berm



Figure 38: View of the stable perimeter berm around the practically empty “fuel bladder” cell. Note only three grey fuel barrels at the corner of the cell. The ponding water in the cell indicates good liner performance.

2.5 Fuel Farm Berms

a) Jet-fuel Tank Farm



Figure 39: View of the well-maintained sand and gravel berm at the lined jet-fuel storage facility.

b) MS-03 Diesel Fuel Tank Farm



Figure 40: Well-maintained, stable berm around the MS-03 diesel fuel farm, with some ponding water, which is indication of good liner performance.

c) MS-03B New Fuel Tank Farm



Figure 41: View of the well-maintained stable berm and interior granular fill over the liner at the new fuel tank farm. Note the ponding water in the cell, indicating good liner performance.

2.6 Solid Waste Landfill Facility and Lined Landfarm Cells



Figure 42: View of soil cover over non-hazardous solid waste in the fenced-in, gated landfill facility.



Figure 43: View of a section of the stable berm at the lined landfarm's cell #1.



Figure 44: View of the stable berm around the currently empty, flooded cell #2 of the landfarm. The ponding water indicates good liner performance.

2.7 QMR2 Rock Quarry – Drainage Conditions



Figure 45: Drainage problems still exist at the first quarry level. Surface drainage shall be rectified.



Figure 46: Drainage problems still exist at the first quarry level. Surface drainage shall be rectified.



Figure 47: View of erosion related problems along the edge of the access road to the quarry.



Baffinland Iron Mines Corporation

August 29, 2025
Project #: CA0055338.6747

Annual Geotechnical Inspection – 2025
APPENDIX "B" – Milne Inlet Port Site - Photographs
Figure 48 to Figure 63



View of a section of Milne Inlet Port

Table of Contents

	Page
3.0 MILNE INLET PORT	
3.1 Hazardous Waste-Cell Berms - (HWB-1, HWB-3 and HWB-4).....	3
3.2 MP-01A Pond	5
3.3 MP-03 Fuel Tank Farm	5
3.4 MP-04 and 04A Land-farm and Contaminated Snow Disposal Cell	6
3.5 Surface Water Management Ponds and Ditches (Pond #3, MP-05, and MP-06 Pond).....	7
3.6 Q01 rock quarry – Drainage Condition at the Main Level	9

3.0 Milne Inlet Port Site

3.1 Hazardous Waste-Cell Berms - (HWB-1, HWB-3 and HWB-4)

a) HWB-1



Figure 48: View of the stable perimeter berm around the lined HWB-1 cell with various materials and seven shipping containers stored within the cell. Materials on pallets should be stored within the cell, not on the berms.



Figure 49: View of the sump and emergency spillway at the back of the HWB-1 cell with stable berm.

b) HWB-3 and HWB-4 Twin Cells



Figure 50: View of the well-maintained HWB-3 cell with stable berm, containing fuel barrels on pallets.



Figure 51: View of stable berm around the HWB-4 cell, storing jet fuel and a shipping container. Note the improved granular base within the cell, protecting the geomembrane liner.

3.2 MP-01A Pond

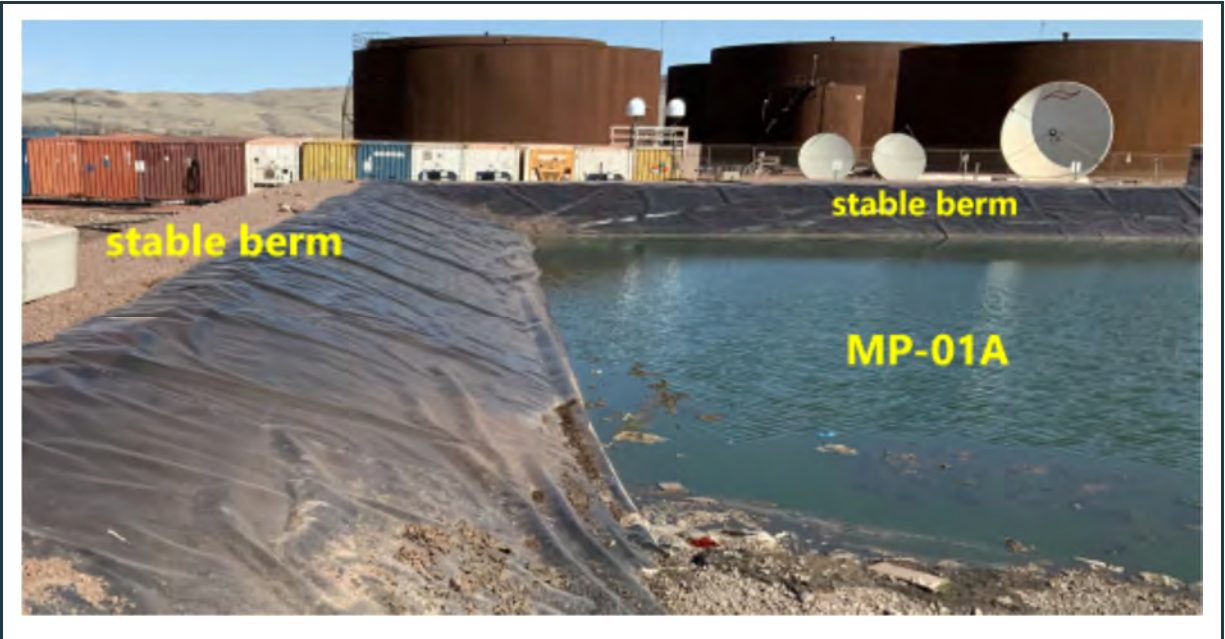


Figure 52: View of the robust, stable berm and intact liner at the MP-01A pond.

3.3 MP-03 Fuel Tank Farm



Figure 53: View of the well-maintained stable perimeter berm around the lined MP-03 fuel tank farm. Ponding water was recently removed from the facility.

3.4 MP-04 and 04A Land-farm and Contaminated Snow Disposal Cell



Figure 54: View of stable perimeter berm around the MP-04 landfarm, with ponding water in one corner of the cell (sump). Note the standard soil cover over the buried solid waste.



Figure 55: View of the lined MP-04A contaminated snow disposal cell with robust, stable perimeter berm. The ponding water (melted snow) indicates good liner performance.

3.5 Surface Water Management Ponds and Ditches (Pond #3, MP-05, and MP-06 Pond)

a) Surface Water Management Pond #3

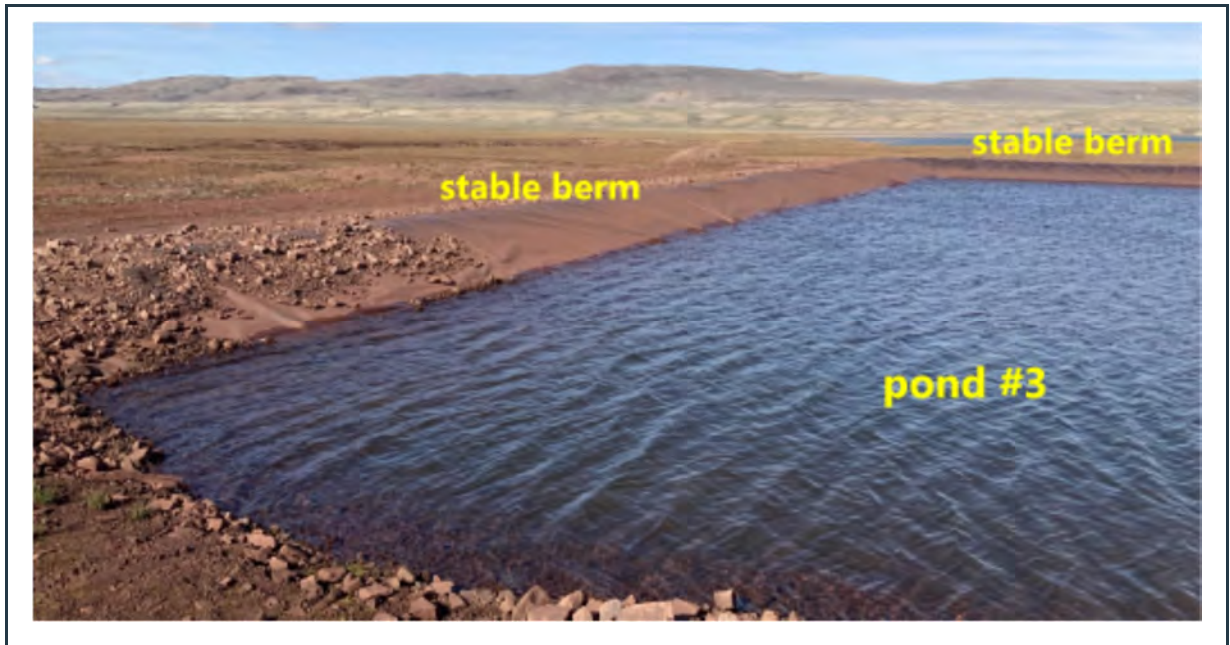


Figure 56: View of surface water management pond #3, with lined, stable berms.

b) MP-05 Surface Water Management Pond



Figure 57: View of the robust, stable perimeter berm and intact liner at the MP-05 pond.



Figure 58: View of the slightly damaged liner (yellow circle) at the intake channel to the MP-05 pond.

c) MP-06 and MP-06/A Surface Water Management Ponds

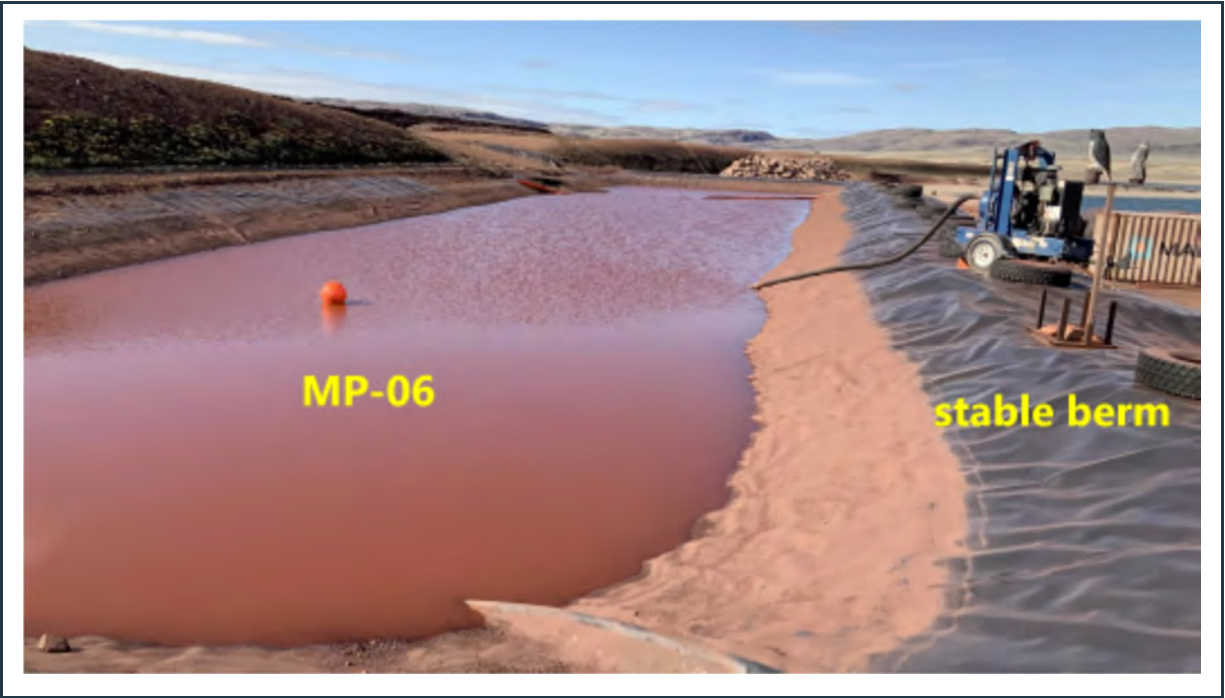


Figure 59: View of the lined MP-06 pond with robust, stable berm.



Figure 60: View of the lined MP-06A overflow pond with robust stable berms.

3.6 Q01 rock quarry – Drainage Condition at the Main Level



Figure 61: View of ponding and flowing water in many areas of the lower (main) level of the Q01 rock quarry. The drainage problem should be rectified prior to restarting the operation in the quarry.



Figure 62: Poor surface water control in many areas of the lower (main) level of the Q01 rock quarry. The culvert at the entrance to the quarry (yellow circle) must be replaced.



Figure 63: P-SWD-5 – “Q01-North” surface water collection ditch with missing riprap at one section of the ditch. Note the continuous seepage from the granular fill pad of the quarry’s lower (main) level.