Baffinland Dust Audit

2025 Annual Report

Prepared for:

Baffinland Iron Mines Corporation

Prepared by:

Nunami Stantec Limited
Independent Dust Audit Committee Members

January 30, 2026

NUNAMI
STANTEC LIMITED

Limitations and Sign-off

This document entitled Baffinland Dust Audit was prepared by Nunami Stantec Limited ("Nunami Stantec") for the account of Baffinland Iron Mines Corporation (the "Client"). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Nunami Stantec's professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Nunami Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Nunami Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Nunami Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

The content of this report was verified virtually with members of the Dust Audit Committee on December 4, 2025.

Executive Summary

Baffinland Iron Mines Corporation (Baffinland) produces direct shipping iron ore at the Mary River Mine located on Baffin Island, Nunavut. The iron ore is loaded onto bulk carrier ships at Milne Port during the shipping season (typically July to October) and primarily shipped to European ports for use by steel makers in continental Europe. Baffinland's Mary River Mine is one of the most northern mines in the world.

In June 2021, Baffinland submitted a Notice and Request to five (5) North Baffin communities of Pond Inlet, Clyde River, Arctic Bay, Sanirajak, and Igloolik regarding a commitment to the Nunavut Impact Review Board (NIRB) to resolve outstanding issues with the Phase 2 Proposal identified by a Pond Inlet Hamlet Council, including dust-related Project interactions. The Dust Audit Committee (the Committee) was formed in response to a commitment outlined in Appendix C – Final Table of Post Phase 2 Approval/Regulatory Phase Commitments for the Mary River Project Phase 2 Proposal issued on January 24, 2022 (Baffinland 2022a). This commitment was later integrated into Amendment No. 4 of Project Certificate 005 as Term and Condition 187, which allowed for the operation to continue at a transportation rate of 6 million tonnes per annum (mtpa) for 2022. After pausing the Sustaining Operations Proposal 2 application for a further 6 mtpa production increase in 2024, the Mary River Project returned to the Early Revenue Phase limits of 4.2 mtpa in 2025. while still prioritising engagement with the Committee, exemplifying commitment to a condition, which was based on a tonnage that was not applicable to 2025. Since 2022, Nunami Stantec Limited (Nunami Stantec) has conducted third-party audit involving the five (5) Inuit communities on North Baffin to identify the greatest potential sources of fugitive dust at the Mary River Project and any modifications or controls that could effectively reduce sources or spread of dust.

The Committee is comprised of nominated representatives from the hamlets and their Hunters and Trappers associations (HTAs) including Pond Inlet, Igloolik, Clyde River, Sanirajak and Arctic Bay, as well as representatives from the Qikiqtani Inuit Association (QIA), and facilitators and engineering subject matter experts from Nunami Stantec and Norda Stelo (Norda).

The following report presents an update on the status of the Committee's recommendations provided to Baffinland based on meetings in 2025. The Committee worked with Baffinland to continue to provide updates on the implementation of recommendations.

Table of Contents

Executive Summary ..... **i**

1 Introduction **1**
1.1 Inuit Qaujimajatuqangit / ᐃᓄᐃᑦ ᖃᐅᔨᓴᓕᕆᔨᖏᑦ 1
1.2 Definitions 3

2 Status of Recommendations **4**
2.1 Blasting ᖁᕆᖏᑎᑐᓂᖅ 6
2.2 Materials Handling ᐅᓴᖏᓂᐊᖏᑕᓂᒃ ᑲᒪᓂᖅ 7
2.3 Dustfall Monitoring ᐳᔾᕋᖅ ᓯᐊᓚᒃᐸᑦᓭᐊᓂᖏᓐᓄᓕᑦ ᖃᐅᔨᓴᐃᓚᓐᓇᖏᓂᖅ 8
2.4 Dust Suppression Technology ᐳᔾᖃᖅᑎᑎᑦᑕᐃᓭᒪᒃᔨᑦᑎᑦ ᐊᑐᖅᑕᐅᓯᑦ 12
2.5 Dust Audit Committee ᐳᔾᕋᓭᓗᓴᓂᑯᓗ ᑲᑎᒪᓴᕋᓛᖏᑦ. 17

3 Dust Audit Committee Feedback **18**

4 Next Steps **20**

5 Conclusion **21**
5.1 Acknowledgements 21

6 References **22**

List of Tables

Table 2.1 Blasting Recommendations 6
Table 2.2 Material Handling Recommendations 7
Table 2.3 Dustfall Monitoring Recommendations 8
Table 2.4 Dust Suppression Recommendatio5s 12
Table 2.5 Commitments to the Committee 17

List of Figures

Figure 1 Overview of satellite derived dustfall extent and concentration, March 14 to May 16, 2024 (adapted from EDI 2025:90). 5
Figure 2 Air Quality and Noise Abatement Management Plan review criteria with the inclusion of recommendations and feedback from the Committee (red circle) (provided by Baffinland, October 2025. Mark-up by Nunami Stantec). 10
Figure 3 Aeroqual AQS-1 device installed at Mary River, November 11, 2025 (provided by Baffinland, December, 2025). 11
Figure 4 Existing dustfall locations (left) and the addition of PASS (red circle) to these sites (right). (provided by Baffinland, [left September 2025; right October 2025]. Mark-up by Nunami Stantec). 11
Figure 5 Application of water along the Mine Haul Road to re-activate calcium chloride (provided by Baffinland, October 2025). 14
Figure 6 Application of water along the Tote Road to re-activate calcium chloride (provided by Baffinland, December 2025). 14
Figure 7 Crusher screen deck without dust suppression (left) and with (DusTreat) (right) (provided by Baffinland, October 2025). 15
Figure 8 Application of water along the airstrip (provided by Baffinland, October 2025). 15
Figure 9 2024 annual dustfall at Mine Site and Milne Port (as reported via select monitoring locations) (provided by Baffinland, October 2025). 16
Figure 10 Photos of Fines (left) and Lumps (right) produced at Mary River Mine (provided by Baffinland, December 2025). 19

List of Appendices

Appendix A Consent Forms

Abbreviations

AQNAMP ..... Air Quality and Noise Abatement Management Plan

AQS-1 ..... Aeroqual AQS-1 Air Quality Monitoring Device

Baffinland ..... Baffinland Iron Mines Corporation

CBM ..... Community-Based Monitoring

DAC ..... Dust Audit Committee

DusTreat ..... Dust suppression product used at crushers

e.g. ..... example

EDI ..... Environmental Dynamics Inc.

FEIS ..... Final Environmental Impact Statement

g/m²/year ..... Grams per square metre per year (dust deposition unit)

HTA ..... Hunters and Trappers Association

IIBA ..... Inuit Impact and Benefit Agreement

IQ ..... Inuit Qaujimajatuqangit / Inuit Societal Values

ISV ..... Inuit Societal Values

km ..... Kilometres

km/h ..... Kilometres per hour

mtpa ..... Million tonnes per annum

NIRB ..... Nunavut Impact Review Board

NO_2 ..... Nitrogen Dioxide

NOx ..... Nitrogen Oxides

NRCan ..... Natural Resources Canada

PASS ..... Passive Air Sampling System

PDA ..... Project Disturbance Area / Project Development Area

$PM_{2.5}$ ..... Fine particulate matter (2.5 microns)

QIA ..... Qikiqtani Inuit Association

ROM ..... Run-of-Mine

SO_2 ..... Sulphur Dioxide

SOP ..... Standard Operating Procedure

TEAMR..... Terrestrial Environment Annual Monitoring Report

TEWG..... Terrestrial Environmental Working Group

WIPFrag ..... Fragmentation analysis tool used in blasting optimization

1 Introduction

The Baffinland Dust Audit Committee (the Committee) was established in September 2022 to observe and understand the present and potential future dust sources at Baffinland's Mary River Mine Site, Milne Inlet Tote Road Corridor, and Milne Port site, and to recommend dust mitigation measures for Baffinland's consideration. Baffinland's Mary River Mine is located on Baffin Island, Nunavut and is one of the most northern mines in the world with one of the richest deposits of iron ore discovered to date, which can be mined, crushed and shipped directly to market, without any potentially hazardous processing involved.

The formation of a Committee was a commitment outlined in Appendix C – Final Table of Post Phase 2 Approval/Regulatory Phase Commitments for the Mary River Project Phase 2 Proposal (Baffinland 2022a). Term and Condition 187 for the Project Certificate reiterates the commitment that Baffinland will "resource an annual audit of dust impacts and mitigations associated with project activities to be completed by a third party acceptable to the responsible parties. The dust audit shall evaluate effectiveness of current measures and if necessary, contain recommendations and options to reduce the spread and impacts of dust from project activities".

The Committee also acknowledges that as per the new Term and Condition (Term and Condition 188) of the Project Certificate, Baffinland will work with the Terrestrial Environmental Working Group (TEWG) to establish site-specific thresholds for conditions that may increase dust dispersion (i.e., wind speed), and corresponding mitigations to implement when thresholds are met. Additionally, the Committee is aware of Baffinland's dust-related commitments to the Qikiqtani Inuit Association (QIA).

The following report presents an update on the status of the Committee's recommendations provided to Baffinland in 2023 (the Recommendations Report) (Nunami Stantec 2023), as well as follow-ups received from Baffinland to date on the status of the implementation of the recommendations. Since submission of the previous annual report in February 2025, three meetings with the Committee and Baffinland to discuss the recommendations and next steps for 2026.

1.1 Inuit Qaujimajatuqangit / ᐃᓄᐃᑦ ᖃᐅᔨᒪᔪᑐᖃᖅᑎᑦ

The principles and Inuit societal values that guide the Committee include Inuit Qaujimajatuqangit / ᐃᓄᐃᑦ ᖃᐅᔨᒪᔪᑐᖃᖅᑎᑦ (IQ), which translates to "that which Inuit have always known to be true", is recognized as a unified system of beliefs and knowledge characteristic of the Inuit culture (National Collaborating Centre for Aboriginal Health, n.d.).

The Project's Inuit Impact and Benefit Agreement (IIBA) has a definition of IQ relevant to this discussion. Use of the Inuktitut term "Inuit Qaujimajatuqangit" or the acronym "IQ" is broadly intended to mean Inuit Societal Values (ISV) that include traditional, current and evolving bodies of Inuit values, beliefs, experience, perceptions and knowledge regarding the environment, including, land, water, wildlife and people, to the extent that people are part of the environment.

The points below outline how the Committee has incorporated IQ values during all stages of Committee work and reporting:

- **Inuuqatigiitsiarniq / ᐃᓅᖃᑎᒌᑦᓯᐊᕐᓂᖅ** -- the Committee strives for consensus in our meetings, and we take the time to listen to the opinions and feedback from each member of the group.
- **Pijitsirniq / ᐱᔾᑦᓯᕐᓂᖅ** – the Committee is comprised of community representatives serving their community.
- **Pilimmaksarniq/Pijariuqsarniq / ᐱᓕᒻᒪᒃᓴᕐᓂᖅ/ ᐱᔭᕆᐅᖅᓴᕐᓂᖅ** – through collaborative discussions, members of the Committee share observations and knowledge which helps develop skills and understanding for all.
- **Piliriqatigiinniq/Ikajuqtigiinniq / ᐱᓕᕆᖃᑎᒌᖕᓂᖅ/ ᐃᑲᔪᖅᑎᒌᖕᓂᖅ** – all members of the Committee are working together for the common cause, to identify and provide recommendations to improve dust generation and management.
- **Tunnganarniq / ᑐᙵᓇᕐᓂᖅ** – All five (5) North Baffin communities working together as part of the Committee, with open discussions and are inclusive of the Hunters and Trappers associations (HTAs) and hamlets.
- **Aajiiqatigiinniq / ᐋᔩᖃᑎᒌᓐᓂᖅ** – this drives the Committee in how decisions are made, for example a consensus is reached prior to putting recommendations forward.
- **Qanuqtuurniq / ᖃᓄᖅᑑᕐᓂᖅ** - the Committee looks for ways to mitigate dust while being innovative and resourceful.
- **Avatittinnik Kamatsiarniq / ᐊᕙᑎᑦᑎᓐᓂᒃ ᑲᒪᑦᓯᐊᕐᓂᖅ** – a driving force of the Committee is to find ways to reduce dust to respect and care for the land, animals, and environment.

Consideration of the IQ values identified above were integrated into the below assessment and are reflected in the information provided by the Committee. IQ shared by the Committee, including any spatial information (if applicable) was compiled and integrated into the report. To finalize the report, Nunami Stantec facilitators met virtually with members of the Committee to review and verify for accuracy and appropriate treatment of sensitive or confidential information before being finalized.

The information shared is the intellectual property of participants and, collectively, the Committee (see Appendix A). This report is not intended as a comprehensive representation of information known by members of the Committee. The absence of additional concerns presented in this report should not be construed as a lack of use by or importance to members of the Committee, rather reflects recommendations of the committee pertinent to 2025.

1.2 Definitions

As first presented in the Recommendations Report (Nunami Stantec 2023), the following definitions are used by the Committee to define each of these terms:

Dust: fine particulate matter generated by drilling, blasting, materials handling, and the transporting of materials. The Committee defines dust as any particles dispersed as a result of project activities.

Dust Source: sources evaluated by the Committee include drilling, blasting crushing, screening, mine haul roads, Tote Road, material handling, stockpiling, shiploading, and other workspace areas at the Mary River Mine.

Mary River Mine Site: “Baffinland’s Mary River Mine Site on Baffin Island, Nunavut, Canada, is one of the most northern mines in the world. It has among the richest iron ore deposits ever discovered, consisting of nine-plus high-grade iron ore deposits that can be mined, crushed, and screened into marketable products” (Baffinland 2022b).

Blasting: Mining activity that involves chemical and physical processes to break iron ore and waste rock into smaller pieces for loading and hauling. Involves the use of explosives, boosters, and detonators based on an engineered blast design.

Tote Road: An approximately 100 km road on which ore is transported from the crushing facility at Mary River Mine Site to Milne Inlet for stockpiling and subsequent shipping.

Mine Haul Roads: Roads which connect the Mine Pit (Deposit 1) to the Crusher Facility, Waste Rock Storage Facility, and mine operation areas.

2 Status of Recommendations

Throughout the duration of the Committee, members have stated the importance of collaborative and ongoing discussions with Baffinland to work to confirm their concerns regarding dust are heard, considered, and mitigated. The Recommendations Report (Nunami Stantec 2023) identified concerns for dust and its impacts to water and water sources (specifically, water transporting dust, and snow and ice they have observed melting faster due to dust, and potential impacts to clean water), wildlife and wildlife habitat (including wildlife health), human health, the cumulative effects of mining and dust, and stressed the impact that industrial activity has on the environment and subsequently on communities on Baffin Island.

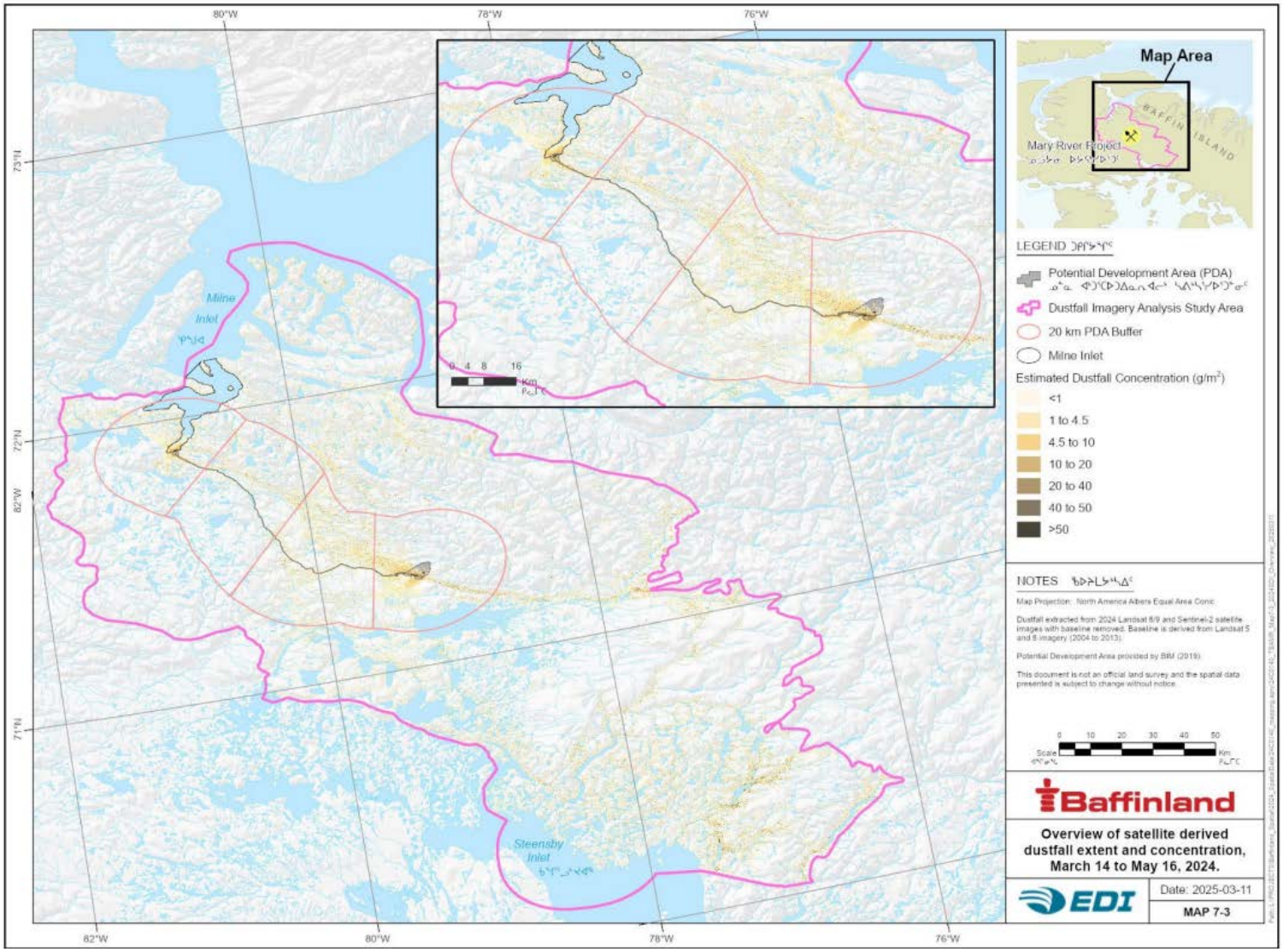
Subsequently, 16 recommendations were proposed by the Committee for implementation by Baffinland. During 2025, Baffinland provided updates to the recommendations via virtual meetings (September 2025, October 2025, and December 2025). The Committee remains interested in continuing discussions related to dust mitigations implemented by Baffinland and their concerns for dust and its impacts.

The below provides a summary of the recommendations and their status as of December 4, 2025. For recommendations considered “closed” in 2025, the Committee remains available to discuss in the context for future planning at Steensby with Baffinland. For those recommendations that do not have an update for 2025, the Committee looks forward to continuing discussions with Baffinland regarding the recommendations as work continues at the Mary River Mine and for consideration as part of planning for Steensby.

Overall, Baffinland reported that the spread of dust continues to decrease despite increased production from 2016 to 2021 (EDI 2025). As reported in the Mary River Project Terrestrial Environment 2024 Annual Monitoring Report (TEAMR), annual total suspended particulate deposition levels were predicted to exceed 50 g/m^2/year at select areas within the Project Disturbance Area (PDA), with total suspended particulate deposition levels decreasing to background beyond the PDA (EDI 2025). The TEAMR concluded that the 2024 dustfall results were consistent with predictions that the highest dustfall would occur within the PDA (EDI 2025). As described by EDI (2025), dustfall at the Mine Site was elevated during the winter (January through March) whereas dustfall at Milne Port was elevated in spring (May/June) and again in October. Dustfall along the Tote Road was elevated through spring and summer and lower during winter months when freezing conditions help to limit road-sourced dust (EDI 2025). Baffinland has noted that dustfall is heavily influenced by weather conditions and specifically moisture and wind which can be highly variable in any given year and between years for the same season.

The TEAMR stated that dustfall extent characterized by examining satellite imagery in 2024 within the Study Area was similar to 2023, with an increase in the Tote Road south extent matched by decreases in other areas (EDI 2025).

Figure 1 Overview of satellite derived dustfall extent and concentration, March 14 to May 16, 2024 (adapted from EDI 2025:90).



2.1 Blasting ᖃᒃᑎᑦᑎᓂᒃ

Baffinland's current operations continues to be focused on Deposit No. 1 of the Mary River Mine. Blasting remains a dust source of concern for the five North Baffin Island communities, including the dispersion of dust from blasts and dispersion of nitrogen oxide (NOx) from blasts. Table 2.1 provides an overview of the recommendations submitted to Baffinland in February 2023, and whether an update was provided by Baffinland in 2025.

Table 2.1 Blasting Recommendations

#	Recommendation (ᐊᑐᓕᕐᑯᐃᔾᔪᑎ)	Response 2025 (ᑭᐅᔾᔪᑖ 2025)
1	Work with explosives supplier and drill and blast engineer to identify dust control measures during the blasting process and to refine blasting protocols to reduce dust and NOx fumes (seen as yellow dust during the blast) for implementation. This includes studying the viability of using dust suppression cannons or fog prior to and during blasting, including looking at truck mounted as well as pit edge mounted machines.	*yes*
2	Continue conversations with the Committee regarding atmospheric winds during the new moon to integrate IQ into the program under development regarding conditions of high-risk dust dispersion and to determine conditions where additional mitigations to reduce dust can be implemented or, where outlined by the wind thresholds report, blasting may be paused until wind speeds are within identified thresholds.	*yes*
3	Practice heightened monitoring and vigilance for the four (4) days following a new moon and be prepared to delay or re-schedule blasting activities based on forecast or observed pressure/wind relative to established thresholds	*yes*
4	Conduct a blast fragmentation size study with explosive supplier and blasting specialists that can be incorporated into the program under development regarding conditions of high-risk dust dispersion	*yes*
5	Update draft explosives management plan once the explosive suppliers and drill and blast engineers have determined the blasting protocols to develop a Standard Operating Procedure (SOP) for blasting, including thresholds for conditions when/where blasting can occur, blast pattern design parameters to help reduce dust, explosive type and usage to help reduce dust, stemming material specifications to help reduce dust, and any other blasting related recommendations that the drill and blast engineer determines would help reduce dust generation.	*yes*

Baffinland confirmed for the Committee that their Technical Services team continues to optimize and improve blast performance to manage vertical energy propagation. Blast optimization inherently includes consideration of dust and NOx reduction, as low dust and low NOx are generally indicators of a more successful blast from an operational perspective. Baffinland further stated that use of water suppression to mitigate dust during blasting is not viable due to the cold winter season freezing the sprayed water, as well as the high risk of equipment damage due to its proximity to the blast.

With respect to conducting a blast fragmentation size study, Baffinland stated that their WIPFrag analysis tool is designed for aggregates and blastrock muckpiles and cannot analyze particle sizes small enough to determine dust content. Therefore, Baffinland stated that an increase in fragmentation size is not part of blast optimization planning. Rather, Baffinland noted that dust generation is being continually improved via other means than fragmentation, such as the blast optimization efforts noted above. In addition,

the stemming product used is a crushed aggregate that has had all fines screened and removed, improving vertical energy containment and reducing dust generation.

In response to Blasting Recommendation #2 and #3, Baffinland provided an update in 2025 that confirmed that wind conditions are monitored as a standard process on site. Baffinland's blasting operations include a Dust Control Trigger Action Response Plan, and that blasting is suspended during Red weather conditions, which is defined as wind speeds exceeding 80 km/h.

Baffinland confirmed for the Committee that their Technical Services team is in the process of updating the Drill and Blast Design SOP and associated technical specification sheet. Once the SOP is finalized, it will be shared with the Committee.

2.2 Materials Handling ᐅᔭᕋᖕᓂᐊᖅᑕᓂᒃ ᑲᒪᓂᖅ

Dust as a result of materials handling activities has been a concern for the Committee, including the potential to optimize the run-of-mine (ROM) material handling to minimize dust. Table 2.2 provides an overview of the recommendation submitted to Baffinland in February 2023, and whether an update was provided by Baffinland in 2025.

Table 2.2 Material Handling Recommendations

#	Recommendation (ᐊᑐᓕᕐᑯᔨᔾᔪᑎ)	Response 2025 (ᑭᐅᔾᔪᑖ 2025)
1	Conduct a ROM optimization study to assess the viability of implementing the following processes to be considered for current and future expansion, including Steensby: • Using a ROM dump pocket • Minimizing the use of front-end loaders at the ore pad and the port • Use of enclosures to collect and minimize dust • Increasing the use of conveyors and transfer chutes • Using luffing stackers to reduce drop height when forming stockpiles • Cover hoppers when loading conveyors, crushers, or screens • Load or unload B-Trains within an enclosed area	*yes*

Baffinland indicated that there continue to be plans underway for Steensby construction, and that the new crushing facility for Steensby operations are still in the design phase. Baffinland stated that as part of their planning, they would incorporate best management practices to mitigate dust production from crushing. Further discussions with the Committee regarding the crushing facility for Steensby are requested to continue with Baffinland.

2.3 Dustfall Monitoring ᐳᔪᖅ ᓯᐊᒻᒪᒃᐸᓪᓕᐊᓂᖓᓄᑦ ᖃᐅᔨᓴᐃᓐᓇᕐᓂᖅ

As stated in previous reports, the Committee has observed seasonal differences in dust generation and dispersion associated with each dust source during site visits and recognized that the seasonal changes were likely due to the moisture content of the materials, such as the dust observed in June versus the dust in October. Table 2.3 provides an overview of the recommendations submitted to Baffinland in February 2023, and whether an update was provided by Baffinland in 2025.

Table 2.3 Dustfall Monitoring Recommendations

#	Recommendation (ᐊᑐᓕᖁᔾᔪᑎ)	Response 2025 (ᑭᐅᔾᔪᑖ 2025)
1	Explore options to implement a continuous sitewide dust monitoring system for Arctic conditions to track the effectiveness of implemented dust mitigations. This system should include active dust monitors in order to: • Measure changes to dust generation associated with changes to blast designs and execution • Determine if there are any exceedances of the ambient air quality standards (at the PDA Boundary) due to dust emissions from blasting and/or mining activities • Understand the contribution of blasting activities to dust emissions	*yes*
2	Install additional passive monitors at a greater distance from the mine to capture the broader regional impacts of dust, including up and down wind of prevailing winds[1]	*yes*

Baffinland confirmed that they are making improvements to their air quality monitoring program as a whole. In 2025, Baffinland continued monitoring the following in consideration of dust:

- Passive dustfall
- Ambient air quality
- Sediment sampling (Lakes and rivers)
- Lake sedimentation monitoring
- Passive dustfall trials (pilot by Natural Resources Canada (NRCan)
- Snow Sampling
- Satellite imagery for dust analysis
- Vegetation monitoring metals and chemicals

Additionally, the Air Quality and Noise Abatement Management Plan (AQNAMP) is being updated to support the planned construction of Steensby. Baffinland has committed to including an avenue for the Committee to provide recommendations for inclusion in the plan as part of the one-time review of the AQNAMP (as discussed in QIA Technical Comment # AE-4 and as accepted as part of Term and Condition 187).

[1] This recommendation would be in addition to the Commitment ID 234 (Baffinland. 2022a), wherein Baffinland committed to developing and funding a “Community Based Monitoring (CBM) program out of Pond Inlet that is Inuit led to monitor the extent of visual dust in the Project Area as well as a snow sampling program”.

Baffinland updated the Committee that the trial of the PurpleAir monitors was completed in 2025. During the trial, it was discovered there were issues with using the monitors at site, and as such, Baffinland stated that PurpleAir was not useful for monitoring air quality at a remote site like Mary River Mine. However, these monitors may still be used in the future if needed. Baffinland shared that air quality monitoring is difficult in the Arctic due to equipment not functioning properly in the cold, and equipment requiring reliable cell coverage or WiFi. Baffinland noted that air quality technology has improved significantly since the initiation of air quality monitoring at Baffinland. Hence, Baffinland has purchased new infrastructure, Aeroqual AQS-1 and Passive Air Sampling System (PASS) which would be installed for trial in 2026.

Aeroqual AQS-1 was identified by Baffinland as a piece of infrastructure (Figure 3) that will be installed at Mary River and Milne Port. Aeroqual AQS-1 is considered industry standard for mines and construction projects and can measure total suspended particulate, PM 2.5, SO2 and NO2. The Committee would request further information once the Aeroqual AQS-1 is installed and data has been collected to understand if the newer technology will provide better results in an Arctic environment for air quality monitoring. The equipment is being installed on the Project Development Area boundary at each Facility (both the Mine and Milne Port) to support comparisons to FEIS predictions.

PASS was also identified by Baffinland as a piece of infrastructure that has been installed at existing dustfall locations to compare to NRCan's trial and ongoing dustfall analysis (Figure 4). Baffinland noted that benefits to the use of PASS includes that it can be installed at far field reference sites, does not require power, conducts passive sampling of NO_2 and SO_2, and can be scaled up for Steensby Rail.

Figure 2 **Air Quality and Noise Abatement Management Plan review criteria with the inclusion of recommendations and feedback from the Committee (red circle) (provided by Baffinland, October 2025. Mark-up by Nunami Stantec).**

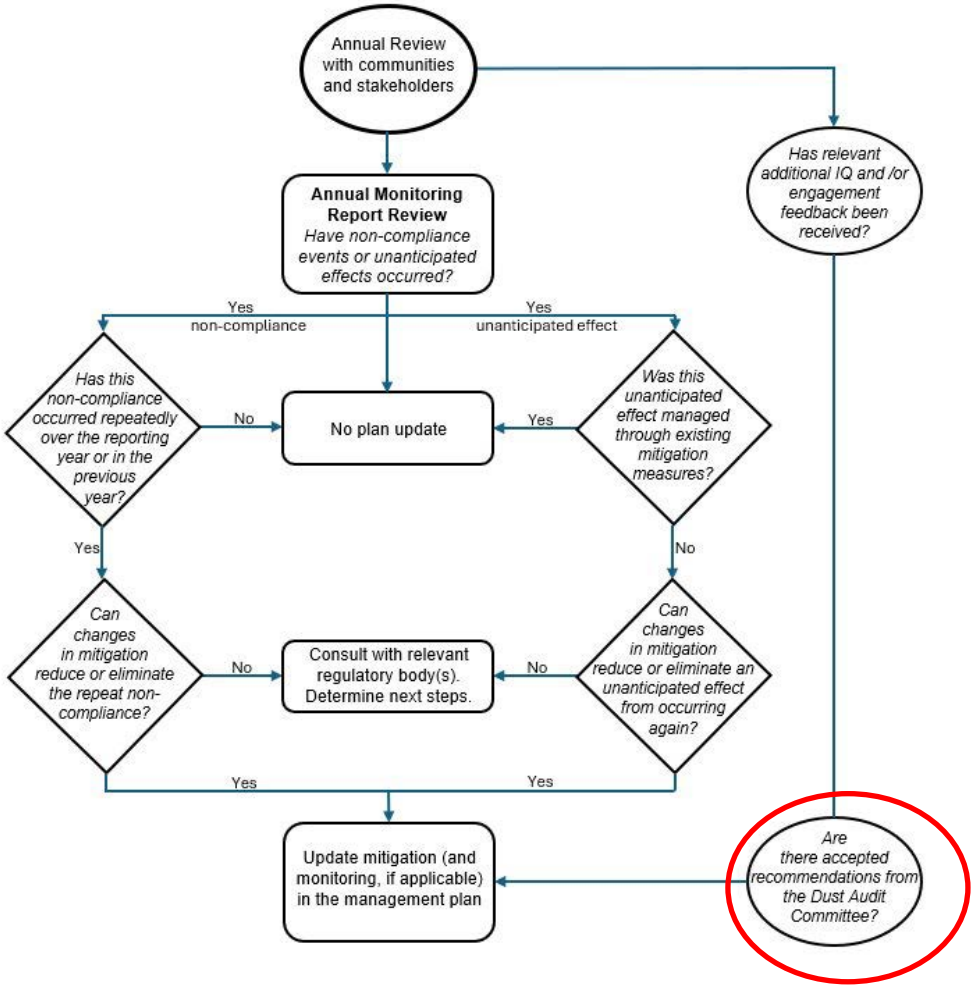


Figure 3 **Aeroqual AQS-1 device installed at Mary River, November 11, 2025 (provided by Baffinland, December, 2025).**

Figure 4 **Existing dustfall locations (left) and the addition of PASS (red circle) to these sites (right). (provided by Baffinland, [left September 2025; right October 2025]. Mark-up by Nunami Stantec).**

2.4 Dust Suppression Technology ᐳᔪᕐᑲᖅᑎᑦᑎᑦᑕᐃᓕᒪᔾᔪᑏᑦ ᐊᑐᖅᑕᐅᓲᑦ

As stated in previous reports, the Committee has observed seasonal differences in dust generation and dispersion associated with each dust source during site visits and recognized that the seasonal changes were likely due to the moisture content of the materials. Table 2.4 provides an overview of the recommendations submitted to Baffinland in February 2023, and whether an update was provided by Baffinland in 2025.

Table 2.4 Dust Suppression Recommendations

#	Recommendation (ᐊᑐᓕᕐᑯᔨᔾᔪᑎ)	Response 2025 (ᑭᐅᔾᔪᑖ 2025)
1	Conduct a study to assess the amount of watering and road maintenance equipment required for present and future operations	*yes*
2	Research the viability of applying sea water on the haul roads and Tote Road, due to the lower freezing point, if Baffinland considers applying water exclusively as dust suppression	*closed*
3	Develop a SOP on dust suppression products that includes procedures on application and the ongoing maintenance for active mine haul roads	*yes*
4	Conduct a study on dust suppressants for utilization on ore that is loaded onto the B-train trucks, instead of covers due to challenges of Arctic winter conditions. The study should also examine which is the most effective dust suppressant for the Arctic weather conditions (liquid or dry).	*yes*
5	Analyze aircraft approved dust suppression products for use on the runway. Approved products for runway use should be incorporated into the SOP on dust suppression.	*yes*
6	Examine the use of wind fences around dust generating infrastructure and complete a feasibility study to determine how to use wind fencing most effectively at both the Mine Site and Milne Port site taking into consideration of Arctic weather conditions. This study should include use of computer modelling to determine the optimal height and location of fencing both at the Mine Site and at Milne Port.	*closed*
7	Examine areas where water treatment can be increased to reduce the amount of dust and particles that enter the drainage basin to reduce the potential effect of dust on the environment, and the reduction of dust that enters the drainage outside of the project boundaries.	*in progress*

With respect to Dust Suppression Recommendations #1 and #3, Baffinland reported that vehicle transits along the Tote Road results in project-related dust generated from wheel entrainment with the road surface. Dust suppression along the Tote Road consists of seasonal water and calcium chloride application along the road surface. Calcium chloride was applied to the road following industry-standard methodology that included spreading calcium chloride flake on the road surface and incorporating it into the top few inches of road aggregate, rather than application as a brine sprayed on the road, as has been done in the past. Trials in 2024 and continued application of the methodology in 2025 found this method significantly more effective at mitigating dust and maintaining the road running surface through varying weather conditions. Periodic additions of water to the Tote Road were required to re-activate the effectiveness of the calcium chloride at controlling dust; however, the required water use for

dust suppression where calcium chloride was in use was far reduced compared to using water alone as a dust suppressant (Figure 5).

With respect to Dust Suppression Recommendation #4, following the 2024 Crusher C trial, Baffinland began applying DusTreat at Crusher B as it was observed to be effective at reducing dust at Crusher C. Application of DusTreat to ore before crushing at Crusher C has been ongoing since November 2024, and the DusTreat application system at Crusher B has been ongoing since February 2025. DusTreat is applied when ore conditions are dry, as observed by crusher operators when loading ore into the crusher. DusTreat is also helping reduce carry back on the B-trains, reduces build-up on crusher screens, and reduces ore freezing at the stockpiles (Figure 7). Baffinland is optimizing the application rate to ensure product is not over applied. Baffinland intends to continue to apply the dust suppressant, as it has proven to be effective at reducing dust and is beneficial overall from an operational perspective. DusTreat is targeted on crusher spreads that service lower moisture content ore classes.

With respect to Dust Suppression Recommendation #5, Baffinland reported that airplane landings and takeoffs can generate dust when the airstrip bed materials are dry. Baffinland continues to apply water as a dust suppressant on the airstrip and apron before the arrival of 737 passenger and cargo aircraft (Figure 8). Water is also applied as needed when dry conditions are observed. Baffinland stated that dustfall deposition in 2024 showed a generally decreasing trend across all project areas (Figure 9). As dust suppressants had been continually applied throughout 2024 and 2025, Baffinland will review data during their annual reporting to see if the decreasing trend continues at the Mine Site, and if there is a change in deposition at Milne Port.

Details regarding Baffinland's responses to Dust Suppression Recommendations #2 and #6 can be found in the 2024 Baffinland Dust Audit Annual Report (Sections 3.3.1.3 and 3.3.1.7 respectively; Nunami Stantec 2025). Regarding Dust Suppression Recommendation #7, the Committee will continue to discuss water treatment areas with Baffinland and to review areas where water treatment can be increased to reduce the amount of dust and particles that enter the drainage basin to reduce the potential effect of dust on the environment, and the reduction of dust that enters the drainage outside of the project boundaries.

Figure 5 **Application of water along the Mine Haul Road to re-activate calcium chloride (provided by Baffinland, October 2025).**

Figure 6 **Application of water along the Tote Road to re-activate calcium chloride (provided by Baffinland, December 2025).**

Figure 7 **Crusher screen deck without dust suppression (left) and with (DusTreat) (right) (provided by Baffinland, October 2025).**

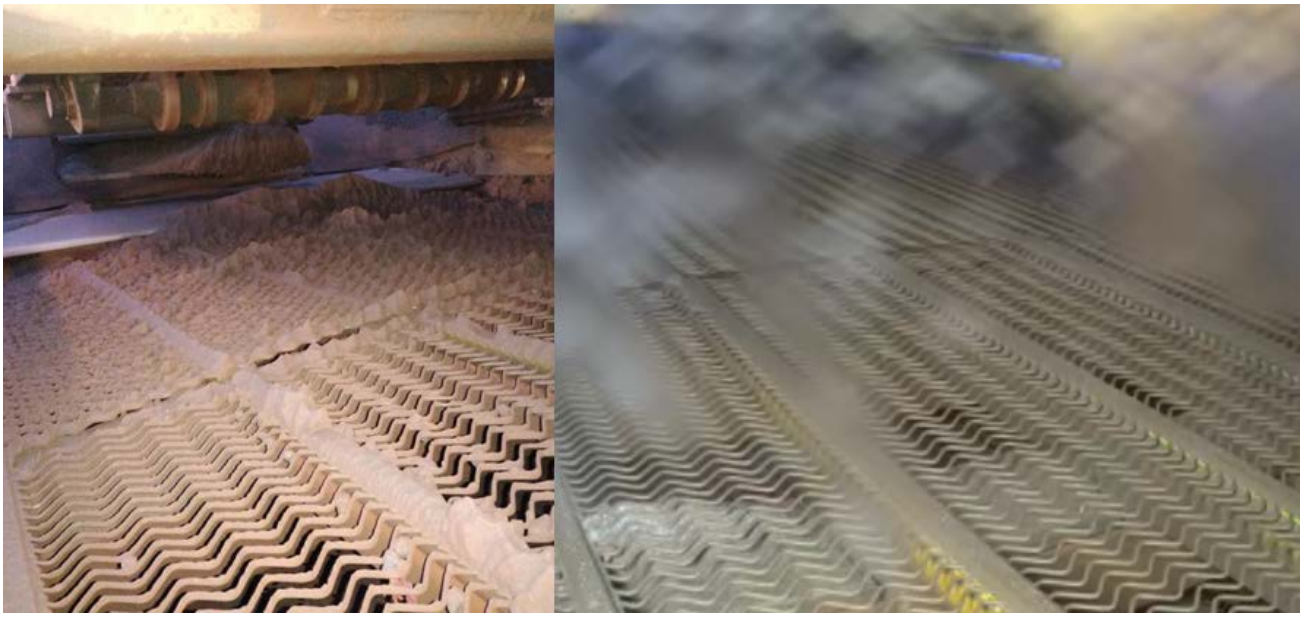
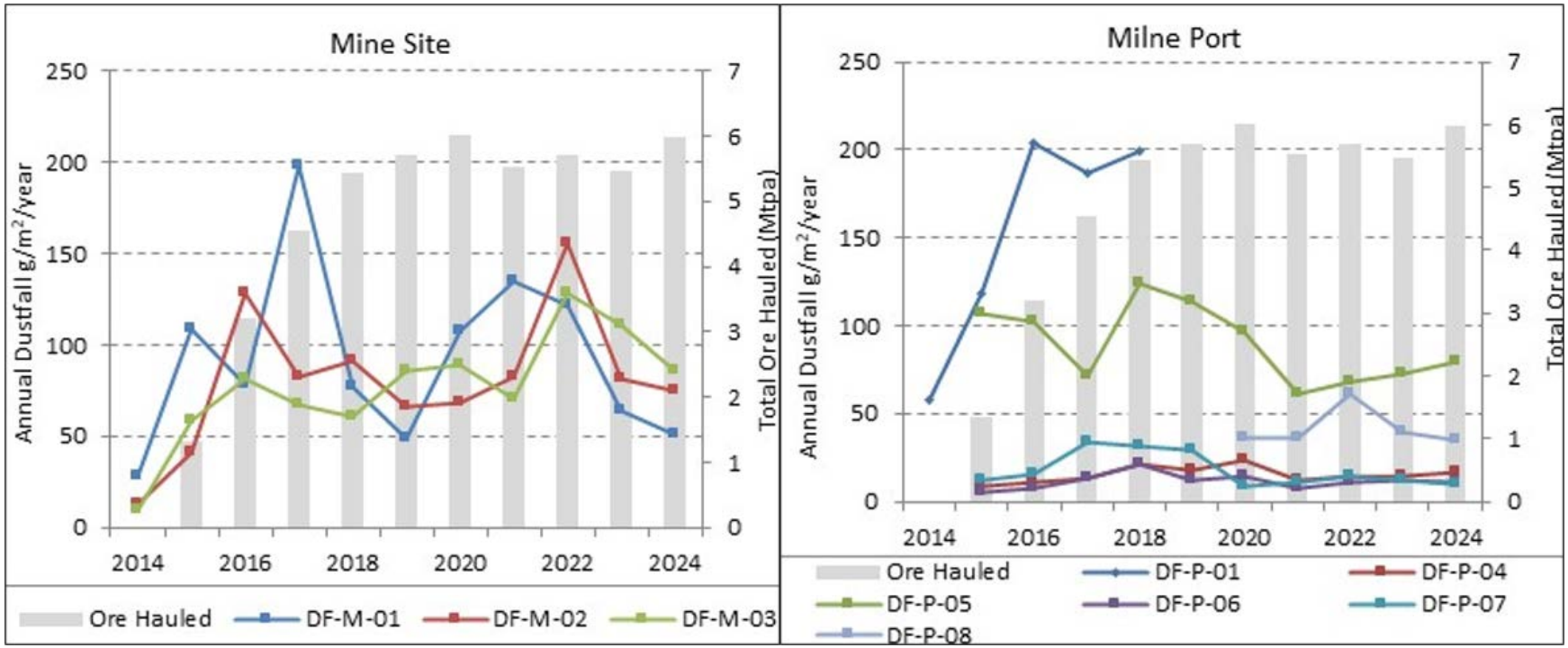


Figure 8 **Application of water along the airstrip (provided by Baffinland, October 2025).**

Figure 9 **2024 annual dustfall at Mine Site and Milne Port (as reported via select monitoring locations) (provided by Baffinland, October 2025).**



2.5 Dust Audit Committee ᐳᔪᕋᓕᓇᔨᒃᑯᑦ ᑲᑎᒪᔨᕋᓛᖏᑦ.

The Committee is pleased that Baffinland continues to fund and support the ongoing dialogue to hear updates and discuss recommendations put forward and the Committee looks forward to future discussions with Baffinland. Table 2.5 provides an overview of the recommendations submitted to Baffinland in February 2023, and whether an update was provided by Baffinland in 2025.

Table 2.5 Commitments to the Committee

#	Recommendation (ᐊᑐᓕᖅᑯᔨᔾᔪᑎ)	Response 2025 (ᑭᐅᔾᔪᑖ 2025)
1	Request: • Ongoing funding of the Committee • Provision of documents in both English and Inuktitut through accessible means • A transparent process of providing data obtained through ongoing studies conducted by Baffinland • Establish a virtual monitoring website that is accessible to the five Northern communities	*yes*

Baffinland intends to continue to maintain the Committee in support of the annual dust audit required of Term and Condition 187 (see Section 4.8.5 of Baffinland's 2024 Annual report for additional details regarding Baffinland's commitments to the Committee as required of Term and Condition 187 [Baffinland 2024]). Baffinland committed to maintaining the Committee to continue to meet and receive updates regarding dust and dust sources, performance of mitigation measures and solicit input regarding potential refinements or improvements. Additionally, Baffinland will report back to the Committee on the implementation and results of the recommendations. Baffinland noted that all monitoring reports are posted on their website[2], and they continue to share hard copies of the report summaries in both Inuktitut and English with the HTAs and softcopies of all reports in memory sticks on an annual basis.

Nunami Stantec and Baffinland have discussed ways to keep the working group fresh and engaged. Given that dust recommendations take time to implement, there were fewer meetings in 2025 and as such, Nunami Stantec and Baffinland began discussing ways to keep the momentum of the group. With this in mind, Baffinland indicated that they would like Nunami Stantec to discuss options to expand the scope of the Dust Audit Committee with members starting in 2026. Topics outside of dust would be member driven.

[2] https://www.baffinland.com/document-portal/

3 Dust Audit Committee Feedback

Members of the Committee expressed that they were pleased that Baffinland has taken their concerns regarding dust and dust sources and are implementing recommendations put forward. The Committee continues to engage with Baffinland and looks forward to hearing updates on recommendations as they are implementing while continuing to be part of the process and to provide feedback. The following questions were asked in 2025, with Baffinland's responses below each:

- Pond Inlet: Are dust suppressants used by Baffinland safe for the environment?
  - Baffinland confirmed that they are safe and approved for use and provided details regarding the product and its regulatory approval.
- Pond Inlet: How much water is added to the Tote Road and if it is applied to the entire road?
  - Baffinland noted that water is applied to the Tote Road to reactivate the calcium chloride, and therefore a conservative amount of water is used. Baffinland confirmed that it is applied along the entire length of the Tote Road.
- Pond Inlet: Where does the runoff water drain to from the Tote Road?
  - Baffinland confirmed that the way that water is applied is just enough to make the surface of the road wet which limits pooling on the road to mitigate interaction with potential receiving water bodies.
- Clyde River: What is used to prevent dust in the winter?
  - Baffinland stated that in the winter, there is no dust suppressant applied to the Tote Road since it is covered in snow and ice, which limits dust generation from road surfaces. At the crusher, Baffinland continues to apply dust suppressant throughout the winter.
- Pond Inlet: What happens during blasting in the winter when there are strong winds?
  - Baffinland confirmed that drilling or blasting is paused when wind speeds exceed 80 km/hr.
- Sanirajak: When there is lots of snow but limited wind, does blasting and drilling occur?
  - Baffinland stated that if heavy snowfall impacts visibility, no drilling or blasting occurs. Baffinland noted that conditions are assessed on a day-by-day basis by on-site supervisors.
- Igloolik: When you do blasting, how far away are the people conducting the blast from the blast site. Is there a way to set a tent on blast site?
  - Baffinland noted that the blast crew stays a set distance away from the blast (determined on a blast-by-blast basis). Baffinland stated that they do not use a tent or any form of coverage for dust control but instead look to control dust through blast design patterns.

During the December 2025 meeting, a Committee member from Igloolik reiterated concerns that community members have regarding dust from the crushers and recommended that fines should not be produced. Baffinland is in the process of providing Igloolik and other committee members with samples of fines and lumps produced at site (Figure 10).

Figure 10 Photos of Fines (left) and Lumps (right) produced at Mary River Mine (provided by Baffinland, December 2025).

4 Next Steps

The Committee plans to coordinate meetings in 2026 which will focus on opportunities to discuss further dust and dust sources at Mary River Project. A site visit is also planned for fall 2026 to meet with Baffinland representatives and to see the advancement of recommendations put forward by the Committee.

5 Conclusion

The Committee has reviewed and endorsed the information in the Annual Report and status of recommendations outlined in this report. The Committee also understands that they will continue to provide ongoing evaluations of the effectiveness of current dust mitigation measures as well as to provide further options to reduce the spread and impacts of dust from project activities.

As indicated in the above report, through the Committee meetings, site visits, and discussions with Baffinland, the Committee has reiterated the importance of Baffinland listening to Inuit voices and the concerns identified. While the concerns associated with dust and dust sources, and the impacts of dust have been noted throughout the mine's lifetime through various engagement activities, the Committee is eager to continue working with Baffinland to mitigate impacts of dust.

5.1 Acknowledgements

The authors of this report would like to recognize and thank all members of the Committee and for their contribution and knowledge which informed this report. We would also like to thank the QIA participating as observers of the Committee.

The Committee would like to thank Baffinland for their support of the Committee, coordination and tours, and receptiveness to answering questions. The Committee would also like to thank subject matter experts who were consulted during the drafting of this report, including mining sector leads and air quality specialists at Nunami Stantec, Norda and dust suppression specialists.

6 References

Baffinland (Baffinland Iron Mines Corporation). 2022a. Mary River Project Phase 2 Proposal. Appendix C – Final Table of Post Phase 2 Approval/Regulatory Phase Commitments. Public Registry Identification: 337783. Available at: https://www.nirb.ca/portal/dms/script/dms_download.php?fileid=337783&applicationid=124701&sessionid=v58n83ptc0qshtosu7f3kbata2.

Baffinland. 2022b. Mary River Mine. Available at: https://www.baffinland.com/operation/mary-river-mine/.

Baffinland. 2024. 2024 NIRB Annual report Baffinland Iron Mines. Annual Report to the Nunavut Impact Review Board. Available at: https://www.baffinland.com/_resources/document_portal/2024-NIRB-Annual-Report.pdf.

EDI Environmental Dynamics Inc (EDI). 2025. Mary River Project Terrestrial Environment 2024 Annual Monitoring Report. Available at: https://www.baffinland.com/_resources/document_portal/2024-Terrestrial-Environment-Annual-Monitoring-Report.pdf.

National Collaborating Centre for Aboriginal Health. n.d. Inuit Qaujimajatuqangit: The role of Indigenous knowledge in supporting wellness in Inuit communities in Nunavut. Prepared by: Shirley Tagalik, Educational Consultant, Inukpaujaq Consulting. Available at: http://www.nccah-ccnsa.ca/docs/fact%20sheets/child%20and%20youth/Inuit%20IQ%20EN%20web.pdf.

Nunami Stantec (Nunami Stantec Limited). 2023. Baffinland Dust Audit Final Recommendations Report. February 8, 2023. Available at: https://www.nirb.ca/portal/dms/script/dms_download.php?fileid=342950&applicationid=125710&sessionid=esdcej1dpojgvvfhrr618rekh1.

Nunami Stantec. 2025. Baffinland Dust Audit 2024 Annual Report. February 28, 2025. Available at: https://www.nirb.ca/portal/dms/script/dms_download.php?fileid=355536.

Appendix A Consent Forms

Dust Audit Committee Interview/Fieldwork Consent Form

Baffinland Iron Mines Corporation
Mine Mary River Project

Interviewee: _____

Interviewer: _____

Date: _____

Nunami Stantec Limited has been contracted by Baffinland Iron Mines Corporation (Baffinland) to participate in an audit of present and potential future dust sources at the Mine Site, Milne Inlet Tote Road Corridor, and Milne Port to identify sources of dust and recommend actions and mitigation that can be used to reduce dust production and dispersion.

Your name has been put forward by your community or Hunter Trapper Organization to participate in this work.

You will be asked questions about community concerns with fugitive dust emissions, sources of dust emissions, and mitigation options to reduce dust emissions.

Information compiled in the final report, and figures created for the report, will be submitted to the Dust Audit Committee for verification and approval prior to release. The intent is that information you share, and the maps created will be shared with Baffinland.

Your participation in this study is voluntary and your identity will not be disclosed in the final report. Nunami Stantec recognizes that the information you share belongs to you and is provided only for the purposes set out above. You have the right to withdraw from the committee at any time before the report is submitted to Baffinland, without penalty and have all your information deleted.

Informed Consent signatures:

I agree to be interviewed by a representative of Nunami Stantec Limited so that information about present and potential future dust sources and recommendations for mitigation at the Mine Site, Milne Inlet, Tote Corridor and Milne Port can be recorded.

I understand that the interview will be recorded by audio recorder or video camera, and that photos may be taken.

Signature of Interviewee _____ Date_____

Signature of Interviewer_____ Date _____

ᐳᔾᓐᒃ ᖃᒥᖅᑭᔨᑦ ᑲᑎᒪᔨᖏᑦ ᐊᐱᖓᓂᖅᓄᑦ ᓄᓇᕗᑦᓂᖅᓄᑦ ᐊᖏᕈᑐᕐᑎᑦ

ᕿᓂᖅᓯᓐ ᓴᐃᕆᔨᓴᓂᒃ ᐅᔾᕆᖅᓂᕐᒧᑦᑕᖏᑦ ᑯᐊᐳᓱᓴᖅᑐᑦ

ᐅᔾᕆᖅᓂᕐᒧᑦᑕᖓᓐ ᓄᑖᑲᖅᓂᒃ ᐱᕈᓱᔪᓂ

ᐊᐱᖅᓯᖅᑕᐅᔪᖅ: _____

ᐊᐱᖅᓯᖅᑐᖅ: _____

ᐅᑦᓗᖅ: _____

ᓄᓇᒥ ᖃᓪᓗᑎᐊᒃ ᓪᓕᑎᑦᑯᑦ ᑲᔪᕐᕕᒃᓴᓪᓗᒥᓐᓇᑦ ᐅᔾᕆᖅᓂᕐᒧᑦᑕᖏᑦ ᑯᐊᐳᓱᓴᖅᓄᓇᓕᒫᑦ (ᕿᓂᖅᓯᓐᑯᑦ) ᐃᓕᐅᕋᑯᐅᓪᓗᑎᒃ ᖃᒥᖅᑭᔪᕐᓂᒃ ᓯᓚᐅᑉᐳᓪᓗᑎᒃ ᐅᔾᕆᖅᓂᕐᒧᑦᑕᖓᓐᓂᖅ, ᖃᓄᖅᓱᐊᓂ ᐅᔪᒃᑕᑦᑕᖓᓐᓂ ᐊᖏᑯᑎᐊᓂ, ᖃᓄᖅᓱᐊᓂᓗ ᑐᓭᑎᑦᑕᖓᓐᓂ ᓇᓗᓇᐃᓐᓗᑎᑦ ᓴᓐᓂᖅᑐᑦᑕᖓᓐᓂ ᐊᖏᓪᓗᑎᒃ ᓴᓇᓕᒫᑦᑐᑎᒃ ᐊᑐᖅᑕᐅᔪᖅᑐᑎᒃ ᓴᓇᓕᒫᓂᖅᓄᑦ ᐊᑐᖅᑕᐅᔪᖅᑐᑎᒃ ᓴᓇᓕᒫᓂᖅᓄᑦ.

ᐊᑎᑦ ᑐᓂᔾᔨᒪᔪᖅ ᓄᓇᕗᒻᒥᑦ ᐊᖏᓚᒪᔪᑐᑐᒃᓴᓪᓗᓯᓚᐅᑉᐳᓪᓗᑎᑦ ᑕᐃᒪᐃᓐᓇᖅᑐᑦ.

ᐊᐱᖅᓯᖅᑕᐅᓂᐊᖅᑐᑦ ᓄᓇᕗᑦ ᐃᓕᓴᐃᑎᒋᔭᖅᓂᒃ ᐊᐅᖓᓚᕐᑐᑦᓂᒃ ᓴᓇᖅᑐᑐᓄᑦ, ᓴᓇᖅᑐᓂᖅ ᐊᔪᖅᑐᑐᓄᑦ ᐊᑐᖅᑕᐅᔪᖅᑐᑎᓪᓗᒥ ᓴᓇᓕᒫᓂᖅᓄᑦ.

ᖃᐅᔨᔨᐅᔪᑦ ᑲᑎᒪᑕᐅᔪᑦ ᐅᓂᒃᑳᖅᑐᑦ, ᓇᐃᔨᑦᑕᐅᔪᑦ ᐅᓂᒃᑳᖅᑐᑦ, ᓴᓇᖅᑐᓂᖅ ᐊᔪᖅᑐᑐᓄᑦ ᐅᓂᒃᑳᖅᑐᑦ, ᑐᓴᐅᒪᔪᓂᖅ ᐊᑐᖅᑕᐅᔪᖅᑐᑎᓪᓗᒥ ᐅᓂᒃᑳᖅᑐᑦ ᐃᓕᓴᐃᑎᒋᔭᖅᓂᒃ ᐊᑐᖅᑕᐅᔪᖅᑐᑎᒃ ᓴᓇᓕᒫᓂᖅᓄᑦ ᐊᑐᖅᑕᐅᔪᖅᑐᑎᒃ ᓴᓇᓕᒫᓂᖅᓄᑦ.

ᖃᐅᔨᔨᐅᔪᑦ ᑲᑎᒪᑕᐅᔪᑦ ᐅᓂᒃᑳᖅᑐᑦ ᐊᖏᓚᒪᔪᑐᑐᒃᓴᓪᓗᓯᓚᐅᑉᐳᓪᓗᑎᒃ ᓴᓇᓕᒫᓂᖅᓄᑦ ᐊᑐᖅᑕᐅᔪᖅᑐᑎᓪᓗᒥ ᓴᓇᓕᒫᓂᖅᓄᑦ ᐊᑐᖅᑕᐅᔪᖅᑐᑎᒃ ᓴᓇᓕᒫᓂᖅᓄᑦ.

ᐊᑎᑦ ᑐᓂᔾᔨᒪᔪᖅ ᓄᓇᕗᒻᒥᑦ ᐊᖏᓚᒪᔪᑐᑐᒃᓴᓪᓗᓯᓚᐅᑉᐳᓪᓗᑎᒃ ᓴᓇᓕᒫᓂᖅᓄᑦ ᐊᑐᖅᑕᐅᔪᖅᑐᑎᒃ