



June 26, 2021

Jonathan Mesher
Resource Management Officer
Crown Indigenous Relations and Northern
Affairs Canada (CIRNAC)
P.O. Box 100
Iqaluit, NU X0A 0H0

Assol Kubeisinova
Technical Advisor
Nunavut Water Board
P.O. Box 119
Gjoa Haven, Nunavut
X0B 1J0

**Re: 2021 Geotechnical Drilling Program – Mine Site Long-Term Water Management Plan
Type 'B' Water Licence 2BE-MRY2131
Commercial Lease No. Q13C301**

Baffinland Iron Mines Corporation (Baffinland) is planning to extend the geotechnical drilling program initiated in April 2021 at the Mary River Mine Site to confirm sedimentation pond locations and support engineering designs for sedimentation pond construction for the proposed Mine Site Long-Term Water Management Plan. Up to six (6) additional shallow drill holes advanced to an average depth of 15 m will be drilled in July during this additional phase of the Program. Of the six (6) additional proposed drilling locations, four (4) locations may encroach within 31 m of the high water mark of local water bodies or seasonal drainages. The drilling program is being managed by Knight Piésold Consulting and performed by Cyr Drilling Ltd. The Program is scheduled to commence in July, 2021 and is expected to require approximately 9 days to complete.

The investigation is being completed to characterize the foundation for the proposed Km 105 sedimentation pond. Boreholes will be drilled using an HQ3 diamond drill. Proposed drilling locations are outlined in Table 1 and the proximity of the proposed locations to surrounding water bodies are shown in Attachment 1. Cry Drilling Lt. will be using a refrigerated drilling technique, requiring the use of water and a calcium chloride solution to prevent the drill holes from freezing while coring samples. Two feet of casing will be used per drill hole to prevent return water from infiltrating holes. Casings will be removed or cut below grade at the completion of the drilling program.

Four (4) of the proposed drilling locations may encroach within 31 m of the high water mark of local water bodies or seasonal drainages, as noted in Table 1.

The geotechnical drill program and its associated water use will be undertaken in accordance with Baffinland's Type B Water Licence No. 2BE-MRY2131. Water will be withdrawn from Camp Lake, which is a large waterbody that will provide the required water volumes with negligible impact. The location of Camp Lake is outlined in Table 2.

Supporting vehicles and equipment trailers include pickup trucks, haul trucks and a float trailer. An excavator and dozer will be used to prepare access roads, required to access the boreholes, within the commercial lease boundary. Boreholes will be advanced to an average depth of 15 m deep below ground surface (mbgs). However, longer drill holes may be necessary depending on the foundation conditions encountered.

Table 1: Proposed Additional 2021 Geotechnical Drilling Locations – Long-Term Water Management Plan

Borehole ID	UTM Coordinates (NAD83, Zone 17N)	
	Easting	Northing
PROP-DH21-21	562,179	7,913,144
PROP-DH21-22	562,193	7,913,118
PROP-DH21-24	562,290	7,912,967
PROP-DH21-25	562,364	7,912,902
PROP-DH21-26	562,343	7,912,888
PROP-DH21-27	562,455	7,912,823

*Locations where drilling may encroach within 31 m of the high water mark.

The estimated water usage rate for the drilling program is approximately 0.25 m³ per linear metre drilled. Assuming 90 m drilled in total, the total water volume requirements for drilling operations is estimated to be 22.5 m³. Water use will be tracked using inline flowmeters to ensure compliance with the daily water withdraw limits for drilling activities (250 m³/day), stipulated in Part C, Item 1 of the Type B Water Licence.

Environmental monitoring will be performed, including pre, during, and post drilling inspections. Drill cuttings will be disposed of in sumps or natural depressions or used for backfill of boreholes, consistent with Part F, Item 4 of Baffinland's Type B Water Licence. An estimated total volume of 3 m³ of sump waste will be generated and disposed in local depressions at a minimum distance of 31 m away from any water body.

Table 2: Proposed Water Source for Drilling Water

Water Source	Easting	Northing
Camp Lake	557793	7914684

Notes: Coordinates in UTM, NAD 83, Zone 17N.

Despite best planning, it should be noted that unforeseen circumstances may necessitate some changes in planning as the program proceeds. Baffinland will endeavor to inform the Inspector and other relevant parties in such circumstances.

In accordance with the conditions of the Type B Water Licence, this letter and attachment provides Baffinland's notification for the drilling of a total of six (6) boreholes with proximity to nearby water bodies.



We trust that this information meets the various notification requirements for geotechnical drilling at the Project. Please do not hesitate to contact the undersigned, should you have any questions or comments.

Regards,

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

Connor Devereaux
Environmental Superintendent

Attachments:

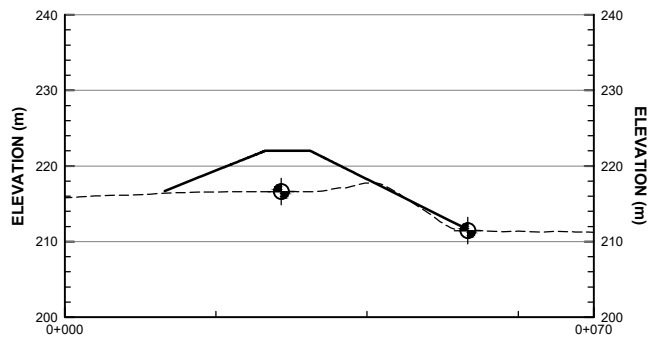
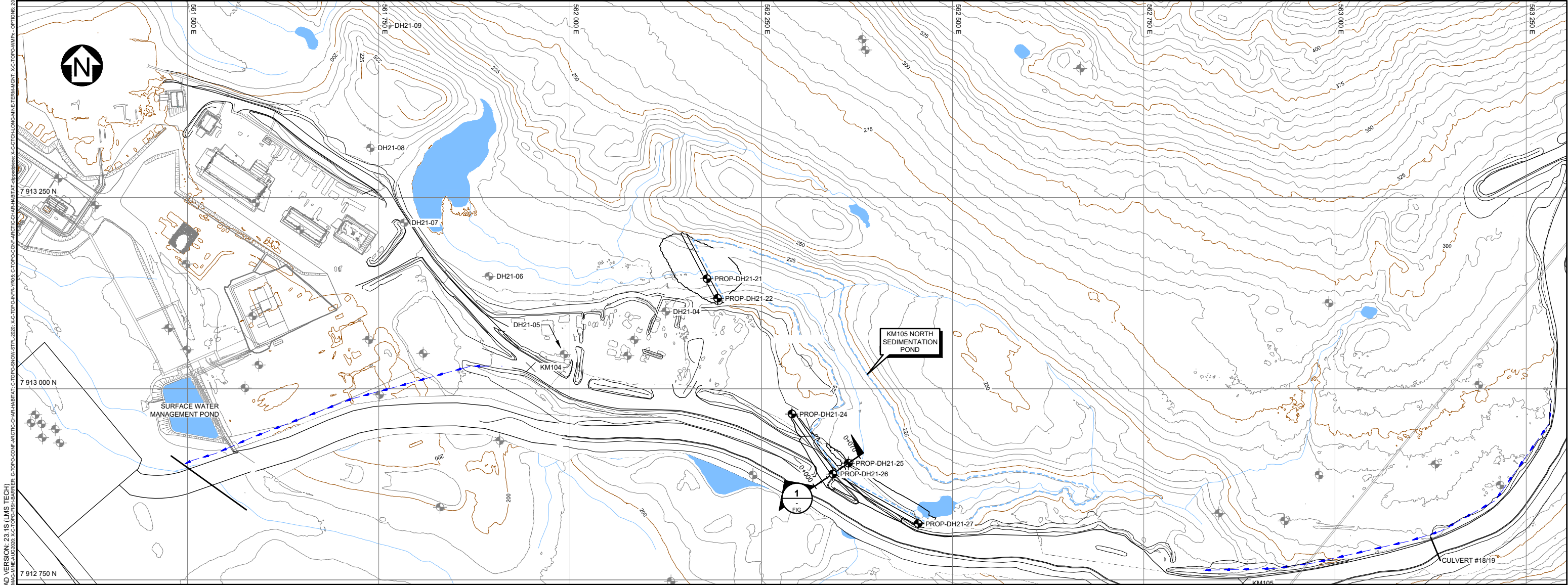
Attachment 1: Proposed Geotechnical Drilling Locations

Cc: Timothy Ray Sewell, Shawn Stevens, Christopher Murray, Megan Lord-Hoyle, Lou Kamermans,
Kendra Button (Baffinland)
Assol Kubeisinova, Karén Kharatyan (NWB)
Bridget Campbell, Godwin Okonkwo, Justin Hack (CIRNAC)
Chris Spencer, Hugh Karpik (QIA)



Attachment 1

Proposed Long-Term Water Management Plan Additional Geotechnical Drilling Locations



1 SECTION
KM105 NORTH SEDIMENTATION POND
SCALE B

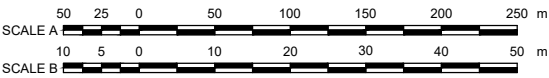
TABLE OF POINTS		
DESCRIPTION	NORTHING	EASTING
PROP-DH21-21	7,913,144	562,179
PROP-DH21-22	7,913,118	562,193
PROP-DH21-24	7,912,967	562,290
PROP-DH21-25	7,912,902	562,364
PROP-DH21-26	7,912,888	562,343
PROP-DH21-27	7,912,823	562,455

LEGEND:

- WATER
- CULVERT (APPROXIMATE)
- SITE INVESTIGATION LOCATION
- HISTORIC SITE INVESTIGATION LOCATION
- EFFLUENT DISCHARGE LOCATION

NOTES:

- COORDINATE GRID IS UTM NAD83, ZONE 17.
- DETAILED WATER FROM EAGLE MAPPING (2014). CONTOUR PROVIDED BY BAFFINLAND (2019 AND MAY 2021) INTERVAL IS 5 m.
- CURRENT MINE AREA FROM THE WASTE DUMP TO THE CRUSHER PAD, AND DITCHES ALONG THE HAUL ROAD PROVIDED BY BIM (MARCH 12, 2018).
- MINE HAUL ROAD AS-BUILT PROVIDED BY BAFFINLAND IRON MINES CORPORATION (MAY 2021).
- ALL OTHER SITE INFRASTRUCTURE PROVIDED BY HATCH (AUGUST 2, 2016) AND SIMPLIFIED BY KP STAFF (JAN, 2018).



BAFFINLAND IRON MINES CORPORATION

MARY RIVER PROJECT

**PROPOSED DRILLHOLE LOCATION PLAN
KM105 NORTH SEDIMENTATION POND**



P/A NO.
NB102-181/70

REF NO.
NB21-00538

FIGURE 1

REV
A

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED
A	28MAY'21	ISSUED WITH TRANSMITTAL	DMMD	AS	KEH