2017 WORK PLAN

November 4, 2016

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SECTION 1.0 - INTRODUCTION

The following document presents the 2017 Work Plan as required under Section 6.1 of Commercial Lease No. Q13C301 (the Lease) agreed between Baffinland Iron Mines Corporation (Baffinland) and the Qikiqtani Inuit Association (QIA). Additionally, this document is a requirement under the Amendment No. 1 of Type 'A' Water Licence 2AM-MRY1325 for the purposes of an Annual Security Review (ASR) for activities undertaken on an annual basis. In the event the Project does not advance, the work items as described and constructed in the 2017 Work Plan will be subject to reclamation, as per the Mary River Project Interim Closure and Reclamation Plan (BAF-PH1-830-P16-0012, refer to Appendix C) and relevant regulatory and permit obligations.

The 2017 Work Plan has been prepared in accordance with the Draft Commercial Lease Operations Guide developed during 2015. The draft Operations Guide is a set of procedures developed jointly by QIA and Baffinland to guide the on-going administration of the Lease. This document was developed using the draft Commercial Lease Operations Guide procedure entitled "Annual Work Plan Submission".

An overview of the ongoing mining operations is provided below; further details are presented in subsequent sections of the document. The ongoing operations for 2017 are as follows:

1. Development and operation of the mine, ore crushing and land transportation, stockpiling and marine shipment of ore.
2. The continued development and construction of infrastructure required at Milne Port and the Mary River Mine Site (Mine Site) and along the Tote Road for the Mary River Project.
3. Mobilization of additional 49 person camp at Milne Port and continued operation of Mine Site and Milne Port Camps to support ongoing operations and construction activities which will include the use of water and deposition of waste as authorized under existing permits.
4. On-going operation of permitted quarry and borrow sources; there are also additional planned quarries or borrow areas along the Tote Road that are identified and are to be utilized during 2017.
5. At Milne Port, vessels carrying fuel, equipment and supplies for use at the Mine Site and Milne Port will arrive during open water (approximately between mid-July and mid-October 2017). Material, fuel and supplies required for operational and construction activities will be transported to the Mine Site year round via the Tote Road.
6. Geotechnical drilling may be required to support engineering, design and construction activities of Project.
7. Ongoing environmental effects studies and baseline data collection will continue to support the construction and operation of the Project as well as for future engineering requirements.
8. Continued environmental monitoring in accordance with the approved Project Certificate, licenses, authorizations, management plans and environmental effects monitoring plans.
9. On-going exploration activities including mapping, prospecting, sampling, and geophysics. There is the potential for a drilling and/or trenching program but these items are not yet finalized.

SECTION 2.0 - LIST OF CURRENT PERMITS

The Work Plan is presented within the context of the applicable regulatory authorizations. Baffinland holds, or will soon hold, all the permits and authorizations required to carry out the 2017 Work Plan. The main regulatory instruments that allow for the 2017 Work Plan activities are presented in Table 2-1 below.

Table 2-1: Existing Environmental Permits

Permit Name	Permit Number	Regulatory Agency	Expiry
Project Certificate and Amended Project Certificate	005	Nunavut Impact Review Board	No Expiry
Inuit Impact Benefit Agreement	N/A	Qikiqtani Inuit Association	No Expiry
Commercial Lease	Q13C301	Qikiqtani Inuit Association	31-Dec-43
Amendment No.1 Type A Water Licence [1]	2AM-MRY1325	Nunavut Water Board	10-Jun-25
Type B Water License - Exploration	2BE-MRY1421	Nunavut Water Board	16-Apr-21
Land Use Permit - Steensby and Milne	N2014C0013	Indigenous an Northern Affairs Canada	30-Jun-17
Land Use Permit - Milne Foreshore	N2014X0012	Indigenous an Northern Affairs Canada	30-Jun-17
Land Use and Quarrying Permit - Tote Road (Borrow P1 at Km 63)	N2014Q0016	Indigenous an Northern Affairs Canada	30-Jun-17
Land Use Permit - Bruce Head	N2014J0011	Indigenous an Northern Affairs Canada	30-Jun-17
Land Lease - Milne Foreshore	47H/16-1-2	Indigenous an Northern Affairs Canada	30-Jun-35
Permitted Quarries and Borrows on Inuit Owned Land: Quarries Q1, QMR2,Q7, Q11, Q19, Borrows KM104, Km 2, and Km 97	N/A	Qikiqtani Inuit Association	N/A
Fisheries Authorization - Ore Dock	14-HCAA-00525	Department of Fisheries and Oceans	31-Dec-20
Fisheries Authorization - Tote Road	NU-06-0084	Department of Fisheries and Oceans	No Expiry
Fisheries Authorization – Crossings	06-HCAA-CA7-00084	Department of Fisheries and Oceans	31-Dec-16
Fisheries Crossings along Tote Road and Quarries, culvert extensions and replacements	Various Letters of Advice	Department of Fisheries and Oceans	No Expiry
Licence to Fish for Scientific Purposes and Animal Use Protocol [2]	S-16/17-1016-NU, S-16/17-1019-NU, AUP 2016-027 FWI-ACC-2016-017	Department of Fisheries and Oceans	-
Navigable Waters - Crossings	8200-07-10273, 10267, 10269, 10268, 10274, 10272, 10266, 10271	Transport Canada	Until work completed
Marine Facility	4306-2-6- P/B	Transport Canada	24-June-20
Scientific Permit [3]	02 008 15R-M	Government of Nunavut	-

Permit Name	Permit Number	Regulatory Agency	Expiry
Archaeology Permit [4]	2016-29A	Government of Nunavut	-
Factory Licence [4]	F76068	National Resources Canada	-

NOTE:
[1] Previously held Type 'B' Water Licence 8BC-MRY1416 was cancelled in February 2016 as all activities therein are now covered by the amended Type 'A' Water Licence.
[2] Held by Minnow Environmental Inc. and North/South Consulting for Licence to Fish for Scientific Purposes associated with the Project
[3] Held by Knight Piésold for performance of IQ and Traditional Harvest Studies associated with the Project
[4] Held by Claude Pinard for performance of archeology work associated with the Project
[5] Held by Dyno Nobel, the explosives contractor on behalf of the Project

As part of the 2017 Work Plan submission, Baffinland has identified the following '*new'* quarry and borrow source locations along the Tote Road which may be required to be developed to complete the work scope during 2017:

1. Quarry Q18 at Km 60 along the Tote Road

In addition, the following quarry and borrow source locations along the Tote Road were previously identified as being required in the 2016 Work Plan but development was deferred to 2017. These quarries and borrow sources are:

1. Quarry Q13 at Km 30.8 along the Tote Road
2. Quarry Q16A at Km 50 along the Tote Road

Borrow Source and Quarry Management Plans will be developed and provided to the QIA for consideration and approval in relation to the above three (3) quarries.

It is also noted the following quarry and borrow source locations along the Tote Road were previously identified as being required in the 2016 Work Plan but development is no longer being considered and therefore they are proposed to be credited during the ASR. These quarries and borrow sources are:

1. Quarry Q9 at Km 10.5 along the Tote Road
2. Quarry Q14 at Km 38.6 along the Tote Road
3. Quarry Q15 at Km 45.0 along the Tote Road
4. Borrow Source P5 at km 65.1 along the Tote Road
5. Borrow Source P6 at Km 67.1 along the Tote Road
6. Borrow Source P7 at Km 71.7 along the Tote Road
7. Borrow Source P8 at Km 73.1 along the Tote Road
8. Borrow Source P10 at Km 75.9. along the Tote Road
9. Borrow Source P13 at Km 85.5 along the Tote Road
10. Borrow Source P14 at Km 90.0 along the Tote Road
11. Borrow Source P15 at Km 91.1 along the Tote Road

SECTION 3.0 - ANNUAL SCOPE OR OPERATIONS AND WORK

Table 3-1 below provides a description of Baffinland's proposed operation and work for 2017, with an emphasis on changes from the previous year, and the anticipated effects that this work would have on the Property and the infrastructure of the mine.

Table 3-1 Changes from Previous Year Operations and Work for 2017

Property Section	Land Use Area	Approximate Location	Description	Description of Effect on Feature(s)	Anticipated Completion Year	Required Permit Applications	Other Information
e.g. Milne Inlet/Tote Road/Mine Site	*e.g. Impact Area/Exploration Area*	*Approximate UTM (if known)*	*Provide a detailed description of the activity.**	*A description of how the feature(s) (topographical and/or manmade) will be affected***	*N/A*	*List any associated permit applications if applicable.*	*e.g. Issued for construction documentation, OENs.*
New Work for 2017							
Milne Port	Impact Area	N 7 975 642 E502 744	Mobilization and occupation of additional 49 person soft-walled camp inclusive of kitchen, dining, locker, recreational and washroom facilities.	No effect, will be placed on developed laydown within Potential Development Area	2017	N/A	N/A
Milne Port	Impact Area	N 7 975 092 E 503 479	Portable batch plant setup inclusive of water heating and storage, aggregate bins, stockpile areas and batching equipment.	Set up on existing laydown	2017	N/A	N/A
Site Wide	Impact Area	Various	Implementation of 'Sedimentation Mitigation Action Plan, Rev.1' initiatives as described in Appendix C of the Completion Report: Environment and Climate Change Canada Fisheries Act Direction (File: 4408-2016-05-10-001) and INAC Letter of Non-Compliance (NWB Licence 2AM-MRY1325) issued by Baffinland on September 30, 2016.	Refer to Sedimentation Mitigation Action Plan. Positive environmental effects anticipated.	2017	N/A	N/A
Mine Site	Impact Area	N 7 914 550 E 545 025	Use old bladder farm as a hazardous waste storage area. Treatment of oily water contact water as necessary using portable oily water treatment plant.	No effect anticipated.	2016	N/A	OEN required.
Mine Site	Impact Area	N 7 913 125 E 561 550	Expansion of Crusher Pad Storage Area to provide increased area for ore, equipment mobility, and extra room for snow storage. Ditch and settling pond to be modified as warranted to address any drainage concerns.	Extension of crusher pad and drainage infrastructure within Potential Development Area,	2017	N/A	OEN, IFCs, revised EMPs required
Milne Port	Impact Area	N 7 975 850 E 503 250	Expansion of Ore Stockpile Storage Area to provide increased area for equipment mobility, ore, and extra room for snow storage. Ditching and settling pond to be modified as warranted to address any drainage concerns.	Extension of crusher pad and drainage infrastructure within Potential Development Area, within Potential Development Area	2017	N/A	OEN, IFCs, revised EMPs required
Milne Port	Impact Area	Various	Additional lighting and poles required to be installed to safety around Milne Port Site. Assumed approximately 3-4 km length for cabling and 20 light poles required.	Minor leveling and grading within Potential Development Area	2017	N/A	N/A
Mine Site	Impact Area	N 7 914 100 E 557 200	Assembly of a tire shop (sea can construction) and parts staging area at ore haul truck line up pad	No effect, will be placed on developed laydown within Potential Development Area	2017	N/A	N/A
Mine Site	Impact Area	N 7 913 350 E 562 100	Construction of additional Truck Wash Building (anticipated to be 50% larger than existing Truck Wash Building at Mine Site)	No effect, will be placed on developed laydown within Potential Development Area	2017	N/A	N/A
Mine Site	Impact Area	TBD	Additional power distribution infrastructure to be installed to allow for dedicated power to the ship loader.	No effect, will be placed on developed laydown within Potential Development Area	2017	N/A	N/A
Mine Site	Impact Area	Various	Additional lighting and poles required to be installed to safety around Mine Site. Assumed approximately 3-4 km length for cabling and 20 light poles required.	Minor leveling and grading within Potential Development Area	2017	N/A	N/A
Site Wide	Impact Area	Various	Implementation of 'Dust Mitigation Action Plan, Rev.1' initiatives as described in Appendix B of the Completion Report: Environment and Climate Change Canada Fisheries Act Direction (File: 4408-2016-05-10-001) and INAC Letter of Non-Compliance (NWB Licence 2AM-MRY1325) issued by Baffinland on September 30, 2016.	Refer to Mitigation Action Plan. Positive environmental effect anticipated.	2017	N/A	N/A
Work Carried over from 2016 Work Plan							

Property Section	Land Use Area	Approximate Location	Description	Description of Effect on Feature(s)	Anticipated Completion Year	Required Permit Applications	Other Information
e.g. Milne Inlet/Tote Road/Mine Site	*e.g. Impact Area/Exploration Area*	*Approximate UTM (if known)*	*Provide a detailed description of the activity.**	*A description of how the feature(s) (topographical and/or manmade) will be affected***	*N/A*	*List any associated permit applications if applicable.*	*e.g. Issued for construction documentation, OENs.*
Milne Port	-	TBD	Consideration given to designing and constructing a new landfill. Note this activity would require application and approval from NWB and QIA. Security will be adjusted accordingly should Baffinland decide to proceed with this activity.	N/A	N/A	N/A	IFCs, OEN, CSR, revised EMPs required
Milne Port	Impact Area	N 7 975 319 E 503 437	Construct approved PWSP at Milne Port	Minor leveling and grading within Potential Development Area	2017	N/A	N/A
Tote Road	Impact Area	Tote Road, Haul Roads and Airstrip	Dust Suppression along the Tote Road (Water and Calcium Carbonate and EK 35 for the Airstrip)	No effect	2017	N/A	N/A
Mine Site	-	Adjacent to existing landfill	Consideration given to designing and constructing a new landfarm during 2016, located adjacent to existing landfill area. Security will be adjusted accordingly should Baffinland decide to proceed with this activity.	N/A	N/A		IFCs, OEN, CSR, revised EMPs required
Mine Site	Impact Area	N/A	Temporary contractor infrastructure determines and required by construction contractors (including lunchrooms, offices etc.), no new units required.	No effect, placed within currently disturbed locations within Land clearing within Potential Development Area	2017	N/A	N/A
Mine Site	Impact Area	N 7914760.19 E 558466.79, other two locations TBD	Construct and install three hazardous waste berms	No effect, placed within currently disturbed locations within Land clearing within Potential Development Area	2017	N/A	IFCs, OEN, CSR
Progressive Reclamation							
Milne Port	-	N 7 975 568 E 503 745	Management of hydrocarbon impacted soils within the existing landfarm facility.	N/A	Ongoing	N/A	N/A
Milne Port	-	N/A	Demobilization of equipment and supplies not required for near term activities as well as current inventory of hazardous waste and other materials by means of sealift from Milne Port	N/A	2017	N/A	N/A
Milne Port	-	N 7976199 E 503 620	Ongoing clean-up at Milne Port Fuel Storage Area from Spill 16-283 that includes continued removal and storage of remaining residual P-50 fuel within the engineered containment and the treatment and discharge of impacted stormwater from the facility as required.	N/A	Ongoing	N/A	N/A
Milne Port and Mine Site	-	N/A	Discharge and treatment of residual treated sewage effluent stored in PWSP at Mary River Exploration Camp and Milne Port Site.	N/A	Ongoing	N/A	N/A
Tote Road	-	N/A	Continue the development and implementation of a long term multi-year plan to address localized areas of permafrost degradation associated with the current borrow areas including Km97	N/A	Ongoing	N/A	N/A
Tote Road	-	N/A	Reclamation of sections of the exploration phase Tote Road no longer in use by means of scarifying and culvert removals.	N/A	Ongoing	N/A	N/A
Mine Site	-	N 7 912 845 E 560 922	Continued development of the Mine Site landfill and deposition of non-hazardous waste in accordance with the Landfill Maintenance and Operations Manual	N/A	Ongoing	N/A	N/A
Site Wide	-	N/A	Ongoing removal from site, or safe disposal on-site of infrastructure, equipment and supplies no longer required for ongoing construction and operations.	N/A	Ongoing	N/A	N/A
Site Wide	-	N/A	Unless otherwise identified within the approved interim Closure and Reclamation Plan, where roads are no longer in use - removal of culvert and open/restore the natural drainage channel. Measures will be taken to minimize erosion and sedimentation	N/A	Ongoing	N/A	N/A

Property Section	Land Use Area	Approximate Location	Description	Description of Effect on Feature(s)	Anticipated Completion Year	Required Permit Applications	Other Information
e.g. Milne Inlet/Tote Road/Mine Site	*e.g. Impact Area/Exploration Area*	*Approximate UTM (if known)*	*Provide a detailed description of the activity.**	*A description of how the feature(s) (topographical and/or manmade) will be affected***	*N/A*	*List any associated permit applications if applicable.*	*e.g. Issued for construction documentation, OENs.*
Site Wide	-	N/A	Areas that have been contaminated by hydrocarbons from normal fuel transfer, handling and storage activities will be reclaimed to meet objectives as outlined in the Government of Nunavut's Environmental Guideline for Site Remediation 2010. Use of reclamation soils for purpose of back fill or general site grading may be carried out with approval of applicable inspectors and agencies.	N/A	Ongoing	N/A	N/A

3.1 INFRASTRUCTURE LAYOUT AT END OF 2017

Site layouts for Milne Port and Mary River Mine Site can be found in Appendix A of this document.

The transition of the Bladder Farm berm at the Mine Site to a Hazardous Waste Storage Area requires an Options Exercise Notice to reclassify the land use of the area to Waste Storage, see Appendix F.

The survey drawings and calculated areas as defined in the 2015 Montieth and Sutherland Survey Plans remain valid for 2017.

SECTION 4.0 - MINING AND EXPLORATION ACTIVITES

4.1 EXPLORATION ACTIVITIES AND DRILLING PLANS

The scope of Baffinland's Type 'B' Licence (2BE-MRY1421) and Commercial Lease with QIA allows for Baffinland to continue/undertake the exploration activities and drilling programs on its mineral leases in the Qikiqtani Region of Nunavut. This includes the exploration land use areas as defined in Section 2.2 of Commercial Lease. The types of exploration activities planned for 2017 are included within the scope of the Type 'B' Water Licence.

At this time when the Work Plan is required to be submitted, the exploration and drilling programs for 2017 have not yet been finalized. However as a minimum, activities will include:

- Mapping
- Sampling
- Geophysical and geochemical surveys.

Operation of the Steensby Inlet Camp and Mid Rail Camp are not at this time anticipated to be required during 2017.

It is anticipated that there will be a geotechnical drilling program conducted during 2017 to support ongoing engineering design work. Once proposed drilling locations are finalized, this information will be provided to QIA, NWB, INAC, and others.

4.2 AMOUNT AND TYPE OF ORE AND WASTE TO BE MINED

An estimate of the breakdown of ore vs. waste mined from Deposit No. 1 by month during 2017 is provided in Table 4-1 below:

Table 4-1: Mine Forecast 2017

Month	Ore Mined (wmt)	Waste Mined (wmt)	Total Mined (wmt)
January	198,987	89,544	288,531
February	198,987	89,544	288,531
March	198,987	89,544	288,531
April	397,973	179,088	577,061
May	397,973	179,088	577,061
June	397,973	179,088	577,061
July	402,827	181,272	584,099
August	403,827	181,272	584,099

Month	Ore Mined (wmt)	Waste Mined (wmt)	Total Mined (wmt)
September	402,827	181,272	584,099
October	402,827	181,272	584,099
November	402,827	181,272	584,099
December	394,987	181,272	576,257
Total	**4,200,000**	**1,893,528**	**6,093,528**

4.3 AMOUNT AND TYPE OF ORE TO BE SHIPPED EACH MONTH

Ore shipping during 2017 will occur during the open water season from July to October. The expected total shipping quantities for 2017 are shown in Table 4-2 below.

Table 4-2: Ore Shipping Forecast 2017

	Lump Ore Shipped (wmt)		Fines Shipped (wmt)		Total Shipped (wmt)	
Month	**Milne Inlet**	**Steensby Inlet**	**Milne Inlet**	**Steensby Inlet**	**Milne Inlet**	**Steensby Inlet**
January	-	-	-	-	-	-
February	-	-	-	-	-	-
March	-	-	-	-	-	-
April	-	-	-	-	-	-
May	-	-	-	-	-	-
June	-	-	-	-	-	-
July	292,000	-	73,000	-	365,000	-
August	1,359,000	-	466,000	-	1,825,000	-
September	1,314,000	-	438,000	-	1,752,000	-
October	185,000	-	73,000	-	258,000	-
November	-	-	0	-	0	-
December	-	-	0	-	0	-
TOTAL	**3,150,000**	**0**	**1,050,000**	**0**	**4,200,000**	**0**

4.4 SPECIFIED SUBSTANCES TO BE QUARRIED AND EXPECTED USES

A summary of the expected quantities of quarried and borrow materials to be extracted during 2016 are provided in Table 4-3, below. The expected quarterly quantities of each specified substance per quarry site and borrow location is provided also in Table 4-3, below.

Table 4-3: 2017 Quarry and Borrow Pit Quantities

Quarry Summary	Km Location	Permitted	Q1	Q2	Q3	Q4	Total	Estimated Surface Area Increase	Estimated Breakdown Of Specified Substances
UNITS			m^3	m^3	m^3	m^3	m^3	m^2	
Q1	1	Permitted	16,000	16,000	16,000	-	**48,000**	6,000	Rock
Q7	7	Permitted	4,000	4,000	4,000	,000	**16,000**	2,000	Rock
Q11	21	Permitted	4,000	4,000	4,000	4,000	**16,000**	2,000	Rock
Q13	30.8	Proposed	4,000	4,000	4,000	-	**12,000**	1,500	Rock
Q16	49	Proposed	4,000	4,000	4,000	4,000	**16,000**	2,000	Rock
Q18	60	Proposed	4,000	4,000	4,000	4,000	**16,000**	2,000	Rock
QMR2	102	Permitted	16,000	16,000	16,000	-	**48,000**	6,000	Rock
Km 2	2	Permitted	1,000	1,000	0	1,000	**3,000**	1,000	Granular
Km 97	97	Permitted	1,000	1,000	0	1,000	**3,000**	1,000	Granular
Total	**-**	**-**	**54,000**	**54,000**	**52,000**	**18,000**	**178,000**	**23,500**	**-**

Notes:

1. The quantities from each source are approximate values and may vary based on minor changes to the schedule and scope, however, the aggregate volume to be extracted is expected to remain constant.
2. The final schedule for the issuance of Quarry and Borrow Source Management Plans for proposed new quarry and borrow areas is not finalized at this time (October 31).
3. It is noted D1Q1 will also be used as a source of aggregate in 2017 to support Mine Haul Road maintenance but is not considered a formal quarry as it is located in the Mining Lease and is likely within the LOM pit extent.

SECTION 5.0 - ANNUAL QUANTITIES OF SOLID WASTE

5.1 SOLID WASTE DISPOSAL

The expected annual quantity of solid wastes to be deposited during 2017 is detailed is established from survey volumes measured in 2015 and 2016, as well as an analysis of proposed activities. Estimated quantities of solid waste to be deposited in approved waste storage areas are shown in the Table 5-1 below.

Table 5-1: Annual Volume of Solid Waste to be Deposited in Waste Storage Areas in 2017

Property Section	Waste Storage Area	Volume of Solid Waste to be disposed of (m^3)
e.g. Milne Port/Tote Road/Mine Site	-	
Mine Site	Landfill	6,000
	TOTAL	6,000

SECTION 6.0 - EXPECTED USES OF WATER

6.1 WATER USE

The Amended No.1 Type 'A' Water Licence 2AM-MRY1325, and the construction Type 'B' Water Licence, 8BC-MRY1416, permits the maximum water use for domestic and industrial purposes during construction phase of the Project as shown in the table below. As per Clause 22 of the QIA-Baffinland Water Compensation Agreement, Baffinland will pay a Consumptive Payment for Water Use, in connection with Project for the maximum water volume permitted to be used or withdrawn annually as defined in the water licences issued to Baffinland by NWB.

Table 6-1: Approved Water Use for Domestic and Industrial Purposes during Construction Phase

Property Section	Water Source Name	Water Source Location	Annual Volume to be used (m^3)
Milne Port (Milne Inlet)	Phillips Creek (Summer)	71° 52' 53.3" N 80° 56' 04.0" W	134,130 m^3/year
	Km 32 (Winter)	71° 30' 39.5" N80° 14' 54.4" W	
Mine Site (Mary River)	Camp Lake	71° 19' 38.6" N 79° 22' 57" W	240,000 m^3/year
Steensby Port (Steensby Inlet)	ST 347 km Lake	N/A	155,400 m^3/year
	3 km Lake	N/A	
TOTAL			**529,530 m^3/year**

Source: Amendment No.1 Type 'A' Water Licence (2AM-MRY1325)

The Amendment No.1 of the Type 'A' Water Licence authorizes Baffinland to withdraw up to 1,500m^3/day to a maximum of 547,500 m^3 annually of water specifically for use in dust suppression or control along the Tote Road of the Project. Water for dust suppression or control shall be obtained from the sources in accordance with thresholds established and shown in Table 6-2 below:

Table 6-2: Water Use for Dust Suppression

Property Section	Water Source Name	Water Source Location		Daily Water Take Proposed for Dust Suppression(m^3/day)	Restrictions
		Latitude	Longitude		
Milne Port	Phillip's Creek	71° 52' 53.3" N	80° 56' 04.0" W	212	None
Milne Port	Km 32 Lake	71° 30' 39.5" N	80° 14' 54.4" W	364	
Tote Road	CV128	71° 47' 35.1" N	80° 36' 41.7" W	579.5	None
Tote Road	CV099	71° 38' 21.7" N	80° 22' 46.6" W	110	June-July only during low flow (<mean flow) years
Tote Road	CV087	71° 34' 10.0" N	80° 19' 41.6" W	90	June-July only during low flow

Property Section	Water Source Name	Water Source Location		Daily Water Take Proposed for Dust Suppression(m^3/day)	Restrictions
		Latitude	Longitude		
					(<mean flow) years
Tote Road	CV078	71° 31' 51.9" N	80° 16' 07.8" W	75	June-July only during low flow (<mean flow) years
Tote Road	Katiktok Lake	71° 23' 45.7" N	79° 48' 22.0" W	318	None
Tote Road	BG50	71° 26' 29.6" N	80° 10' 27.1" W	150	None
Tote Road	BG32	71° 23' 35.1" N	79° 51' 24.9" W	120	June-July only during low flow (<mean flow) years
Tote Road	CV217	71° 23' 51.4" N	79° 48' 50.9" W	130	None
Tote Road	Muriel Lake	71° 22' 18.5" N	79° 39' 24.3" W	212	None
Tote Road	David Lake	71° 19' 38.6" N	79° 22' 57.0" W	132	None
Tote Road	BG17	71° 21' 19.8" N	79° 34' 44.0" W	75	June-July only during low flow (<mean flow) years
Tote Road	CV223 (Tom River)	71° 19' 40.5" N	79° 26' 15.8" W	135	None
Mine Site	Camp Lake	71° 19' 38.6" N	79° 22' 57" W	86	None

Source: Amendment No.1 Type 'A' Water Licence (2AM-MRY1325)

SECTION 7.0 - MATERIALS TO BE SHIPPED OFF THE PROPERTY

7.1 MATERIALS SHIPPED OUT

As required by the Lease, the expected quantities of materials planned to be shipped off site in 2017 are detailed in Table 7-2 below.

Table 7-1: Materials to be shipped out in 2017

Property Section	Equipment/ Material Item	Owner	Estimated Annual Amount of Equipment and Material (tonne)	Estimated Annual Revenue Tonnes
e.g. Milne Port/Mine Site	Description of the equipment or the material*	e.g. BIM/Third Party	Estimated total annual amount of equipment and material (tonne)	Estimated amount of revenue tonnes assigned to the shipping of equipment or material
Milne Port	Batteries	BIMC	27	-
Milne Port	Hydro Carbon Contaminated Material	BIMC	62	-
Milne Port	Waste Oil	BIMC	373	-
Milne Port	Waste Fuels	BIMC	28	-
Milne Port	Waste Grease	BIMC	10	-
Milne Port	Waste Hazardous Liquids	BIMC	121	-
Milne Port	Waste Aerosol Canisters	BIMC	1	-
Milne Port	Contaminated Containers/Solids	BIMC	96	-
Milne Port	Misc Hazardous Materials	BIMC	75	

Note: For hazardous waste assumptions used in the calculation of the quantity of generated hazardous waste for the Project, please refer to the Waste Management Plan (BAF-PH1-830-P16-0028).

SECTION 8.0 - MATERIALS TO BE SHIPPED TO THE PROPERTY

At least two bulk fuel deliveries will occur during the 2017 sealift. At the onset of the shipping season, arctic diesel and Jet A fuel will be delivered to fill the tanks at the Milne Port tank farm.

The anticipated fuel delivery is as follows:

Table 8-1: 2017 Anticipated Fuel Delivery

	Diesel	Jet A
Total Bulk Fuel Delivery	45 ML	2 ML

Materials, equipment, supplies, buildings and machinery to support construction and operations through the remainder of 2017 and 2018 will arrive on the 2017 sea lift include:

Table 8-2: Mobile and Mechanical Equipment to be received during 2017

Property Section	Material Item	Owner	Quantity	Revenue Tonne
e.g. Milne Port or Mine Site	*Description of the material**		*Quantity of the material to be shipped to and stored on the Property (including unit of measurement)*	*Estimated amount of revenue tonnes (mt) assigned to the shipping of material*
Milne Port	Feeders	Baffinland	3	-
Milne Port	Jump conveyors	Baffinland	12	-
Milne Port	Additional 'cross' conveyor	Baffinland	1	-
Milne Port	Screener	Baffinland	1	-
Milne Port	992 loaders	Baffinland	4	-
Mine Site	Cone crusher	Baffinland	1	-
Mine Site	Zoom boom	Baffinland	1	-
Mine Site	Jaw crusher (to allow for redundancy)	Baffinland	1	-
Mine Site	Chain conveyor	Baffinland	2	-
Mine Site	Passenger bus	Baffinland	1	-
Mine Site	Mechanics Truck (with crane and compressor)	Baffinland	1	-
Mine Site	Large Forklift	Baffinland	2	-
Mine Site	Large Fuel/Lube Truck	Baffinland	1	-
Mine Site	Grader	Baffinland	1	-
Mine Site	777 Haul Truck	Baffinland	1	-
Mine Site	D10 Dozer	Baffinland	1	-
Mine Site	Pick-Up Truck (F-350 or comparable)	Baffinland	12	-
Milne Port / Mine Site	Light Plant	Baffinland	20	-
Milne Port / Mine Site	Frost Fighter	Baffinland	20	-
Mine Site	Ore Haul Trucks (including B-Train Trailers)	Baffinland	8	-
Mine Site	Ore Haul Truck B-Train Trailers	Baffinland	8	

Additional supplies to support construction and operations through the remainder of 2017 and 2018 will arrive on the 2016 sea lift include:

- Delivery of ammonium nitrate (AN), up to 2,340 m^3 to be stored on-site in 2017
- Delivery of pre-packaged explosives, up to 716,000 kg to be stored on-site in 2017
- Delivery of maintenance parts.

- Delivery of consumables (lubricants, grease, detergents, boosters, EZ Dets, dry goods, food, household supplies, etc.).

SECTION 9.0 - UPDATES TO ITEMS CONTAINED IN THE SCHEDULES OF THE LEASE

9.1 UPDATES TO THE EMERGENCY RESPONSE PLAN

In accordance with Clause 5.1 item H of the existing Commercial Lease Q13C031, the applicable Emergency Response Plan BAF-PH1-830-P16-0007 and Spill Contingency Plan BAF-PH1-830-P16-0036 have been provided in Appendices of this Work Plan. Please refer to Section 11 for location and details.

9.2 UPDATES TO ENVIRONMENTAL MANAGEMENT AND MONITORING PLANS

All updated Environmental Management and Monitoring Plans were submitted in March 2016 with the Annual Reports. An extensive list of these plans that were submitted can be seen in the table below:

Table 9-1: Environmental Monitoring and Management Plans

Document Number	Plan Name	Version
BAF-PH1-830-P16-0002	Air Quality and Noise Abatement Management Plan	March 2016
BAF-PH1-830-P16-0006	Cultural Heritage Resource Protection Plan	March 2016
SD-STD-002	Hazard Identification and Risk Assessment Procedure	December 2010
N/A	EHS Framework Standard	December 2010
H337697-0000-01-126-0002	Health and Safety Management Plan	January 2012
SD-SEMP-003	Human Resources Management Plan	December 2010
BAF-PH1-830-P16-0027	Terrestrial Environmental Management and Monitoring Plan	March 2016
BAF-PH1-830-P16-0025	Stakeholder Engagement Plan	March 2016
BAF-PH1-830-P16-0023	Roads Management Plan	March 2016
BAF-PH1-830-P16-0024	Shipping and Marine Wildlife Management Plan	March 2016
N/A	Blasting Management Plan (see Note 1)	April 2013
BAF-PH1-830-P16-0004	Borrow Pits and Quarry Management Plan	March 2014
N/A	Borrow Source Management Plan (See Note 2)	October 2013
BAF-PH1-830-P16-0030	Borrow Source Management Plan - Kilometer 2	October 2014
BAF-PH1-830-P16-0032	Borrow Source Management Plan - Kilometer 97	October 2014
BAF-PH1-830-P16-0035	Borrow Source Management Plan - Kilometer 104	March 2014
H349000-4200-07-245-0001	Quarry Management Plan D1Q1	October 2013
H349000-4200-07-245-0002	Quarry Management Plan D1Q2	October 2013
H349000-1000-07-126-0013	Quarry Management Plan Q1	March 2013
H349000-3000-07-245-0002	Quarry Management Plan Q11	October 2013
H349000-3000-07-245-0003	Quarry Management Plan Q19	October 2013

Document Number	Plan Name	Version
H349000-3000-07-245-0001	Quarry Management Plan Q7	October 2013
BAF-PH1-830-P16-0040	Quarry Management Plan QMR2	September 2014
BAF-PH1-840-P16-0002	Emergency Response Plan	February 2016
BAF-PH1-830-P16-0036	Spill Contingency Plan	March 2016
BAF-PH1-830-P16-0008	Environmental Protection Plan	August 2016
BAF-PH1-830-P16-0010	Fresh Water, Sewage and Wastewater Management Plan	March 2016
BAF-PH1-830-P16-0011	Hazardous Materials and Hazardous Waste Management Plan	March 2016
BAF-PH1-830-P16-0012	Interim Abandonment and Reclamation Plan	March 2016
BAF-PH1-830-P16-0026	Surface Water, Aquatic Ecosystems, Fish and Fish Habitat Management Plan	March 2016
BAF-PHI-830-P16-0001	Surface Water Sampling Program - Quality Assurance and Quality Control Plan	March 2016
BAF-PH1-830-P16-0039	Aquatic Effects Monitoring Plan	March 2016
BAF-PH1-830-P16-0028	Waste Management Plan	March 2016
BAF-PH1-830-P16-0029	Phase 1 Waste Rock Management Plan	April 2014
BAF-PH1-830-P16-0031	Life of Mine Waste Rock Management Plan	April 2014
N/A	Explosives Management Plan (see Note 3)	August 2013
BAF-PH1-830-P16-0013	Milne Port Oil Pollution Emergency Plan (OPEP)	June 2015
BAF-PH1-830-P16-0041	Polar Bear Safety Plan	March 2016
BAF-PH1-830-P16-0037	Exploration Spill Contingency Plan	June 2014
BAF-PH1-830-P16-0038	Exploration Closure and Reclamation Plan	July 2014
BAF-PH1-830-P16-0042	Spill at Sea Response Plan	August 2015

NOTES:
[1] The Blasting Management Plan appears in each quarry-specific management plan.
[2] Discontinued and incorporated into the March 2014 Borrow Pits and Quarry Management Plan.
[3] The Explosives Management Plan is a contractor document.

9.3 PROPOSED UPDATES TO THE INTERIM CLOSURE AND RECLAMATION PLAN

The updated Interim Closure and Reclamation Plan (ICRP) for the project has been provided as an appendix to this Work Plan. The provision of additional securities for the 2017 Work Plan is allocated as summarized in Table 9-2 below. Further detail can be found in Appendix B.

Table 9-2: Mary River Project Total Closure and Reclamation Security Summary[1]

	A	B	C	D	E	F	G
	Authorization	**Liability**	**Global Estimate from 2016/17 ASR ($)**	**2017/18 ASR Marginal Estimate ($)**	**Total 'Global' Estimated Security for 2017/18 ($)**	**Total Posted ($)**	**Adjustment to be Posted ($)**
					C + D		**E - F**
1	Type A 2AM-MRY1325	IOL[2]	45,055,000	1,880,000	46,935,000	48,846,000	(1,911,000)
2		Crown	1,210,000	-	1,210,000	1,210,000	-
3		Water	1,342,000	-	1,342,000	-	-
4		Land	44,923,000	1,880,000	46,803,000	-	-
5	*Subtotal Type A*		*46,265,000*	*1,880,000*	*48,145,000*	*50,056,000*	*(1,911,000)*
6	Type B Construction 2BC-MRY1416	IOL[2]	-	-	-	-	-
7		Crown	-	-	-	147,000	(147,000)
8		Water	-	-	-	-	-
9		Land	-	-	-	-	-
10	*Subtotal Type B Construction*		-	-	-	-	*(147,000)*
11	Type B Exploration 2BE-MRY1421 [3]	IOL	165,000	-	165,000	-	165,000
12		Crown	1,082,000	-	1,082,000	1,250,000	(168,000)
13		Water	18,000	-	18,000	-	-
14		Land	1,229,000	-	1,229,000	-	-
15	*Subtotal Type B Exploration*		*1,247,000*	-	*1,247,000*	*1,247,000*	*(3,000)*
16	DFO Security Associated with Ore Dock	IOL[2]	-	-	-	-	-
17		Crown	563,000	-	563,000	563,000	-
18		Water	563,000	-	563,000	563,000	-
19		Land	-	-	-	-	-
20	*Subtotal DFO*		*563,000*	-	*563,000*	*563,000*	-
21	AANDC Land Lease 47H/16-1-2 [4,5]	IOL[2]	-	-	-	-	-
22		Crown	4,975,000	-	4,975,000	4,975,000	-
23		Water	-	-	-	-	-
24		Land	4,975,000	-	4,975,000	4,975,000	-
25	*Subtotal AANDC Land Lease*		*4,975,000*	-	*4,975,000*	*4,975,000*	-
27	**GRAND TOTAL**		**53,050,000**	**1,880,000**	**54,930,000**	**58,721,000**	

NOTES:

1) Totals rounded to nearest '000 in CAD
2) Security relating to IOL held by Qikiqtani Inuit Association (QIA) under Commercial Lease No. Q13C301
3) As per Mary River Exploration Project Closure and Reclamation Plan (BAF-PH1-830-P16-0038, Rev 1)
4) Posting process for security relating to AANDC Land Lease 47H/16-1-2 phased into a 2-step approach. Phase 1 to be posted November 2016.
5) As per Closure and Reclamation Strategy and Financial Security Estimate for Nunavut Lease #47H/16-1-2 (H349001-2000-07-126-0001, Rev.0)

SECTION 10.0 - REQUESTED AMENDMENTS TO THE PROVISIONS OF THE LEASE

There are no anticipated changes to the lease at this time.

SECTION 11.0 - ADDITIONAL REPORTS, INFORMATION OR DATA

It is noted Baffinland anticipates applying for a second amendment to Project Certificate No. 005, and potential corresponding amendment to Type 'A' Water Licence 2AM-MRY1325 in 2017 to support a potential project expansion.

It is noted consideration is being given to changing explosive type being used at the site from a 100% emulsion to an emulsion/AN mix. This change is anticipated to improve product quality and increase blasting efficiency. An environmental study will be completed to ensure that the change being made will not adversely impact the environment.

Additional reports, information or data required to support the 2017 Work Plan is summarized in Table 11-1 below.

Table 11-1: Additional Reports, Information or Data

Title	Organization	Date	Annex
Identify the title of the additional report, information or data to be included with the Annual Work Plan.	*Disclose the name of the organization that produced the addition report, information or data.*	*Include the publish date or reference year to the additional report, information or data.*	*Identify the Annex letter/number corresponding to the additional report, information or data.*
Milne Port – Infrastructure Footprint – Work Plan 2017	Knight Piésold on behalf of Baffinland	November 2, 2016	Appendix A
Mine Site – Infrastructure Footprint – Work Plan 2017	Knight Piésold on behalf of Baffinland	November 2, 2016	Appendix A
2017 Marginal Closure and Reclamation Financial Security Estimate	Hatch on behalf of Baffinland	November 4, 2016	Appendix B
Interim Closure and Reclamation Plan	Baffinland	BAF-PH1-830-P16-0012	Appendix C
Emergency Response Plan	Baffinland	BAF-PH1-830-P16-0007	Appendix D
Spill Contingency Plan	Baffinland	BAF-PH1-830-P16-0036	Appendix E
Options Exercise Notice – New Waste Storage Area – Former Mine Site Fuel Bladder Farm	Baffinland	November 4, 2016	Appendix F

Appendix A:

2017 Work Plan Site Layouts

2017 Work Plan – Milne Port Site Layout

2017 Work Plan – Mine Site Layout

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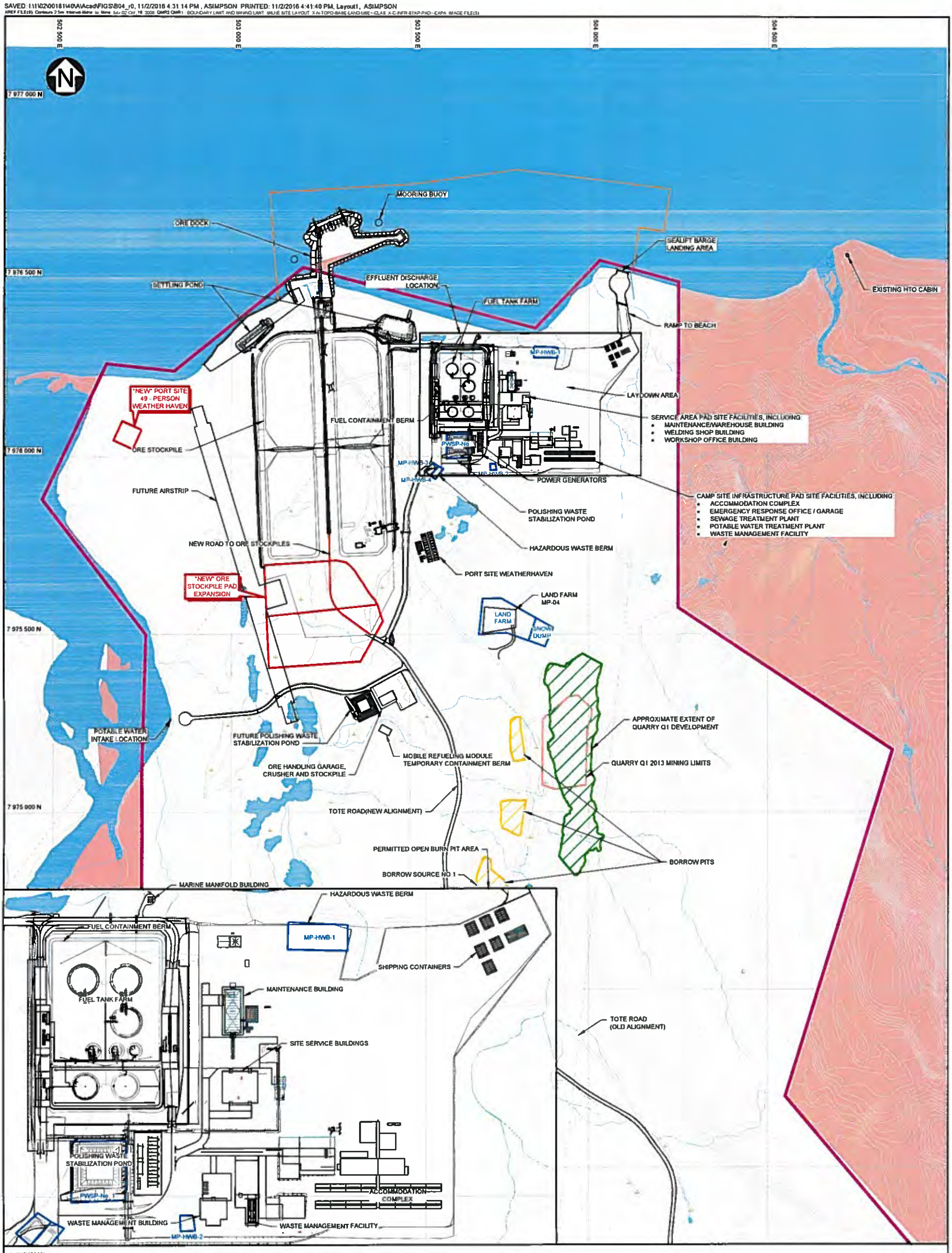
XREF FILE(S): Contours 2.5m Interval-Metric to Mine_5d-r-02-Oct_16_2008_QMR2 QMR1_BOUNDARY LIMIT AND MINING LIMIT_MILNE SITE LAYOUT_X-N-TOPO-BASE (LANDUSE)~CLAS_X-C-INFR-STRP-PAD~EXPA_IMAGE FILE(S)



LEGEND:

- WATER
- BORROW AREAS (2013 UNDER Q10C3001)
- QUARRY AREA (EXISTING UNDER Q13C301)
- INUIT OWNED LAND - SURFACE ONLY EXCLUDING MINERALS
- WASTE STORAGE AREA
- RIVER/STREAM/DRAINAGE
- ROAD
- QIA SURFACE COMMERCIAL LEASE IMPACT BOUNDARY
- "NEW" FEATURE

NOTES:

1. COORDINATE GRID IS UTM NAD83 ZONE 17N.
2. TOPOGRAPHY PROVIDED BY EAGLE MAPPING (2005)
3. PLAN/SECTION BASED ON INFORMATION PROVIDED BY HATCH, DATED (JAN 31,2014).
4. CONTOUR INTERVAL IS 2.5 METRES
5. ALL SAMPLE ID'S SHOWN IN BRACKETS REPRESENT THE TYPE B WATER LICENCE(S) MONITORING POINTS. ALL OTHERS ARE MONITORING POINTS AS PER THE TYPE A WATER LICENCE (2AM-MRY1325)

SCALE A: 100 50 0 100 200 300 400 500 m

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED
0	02NOV16	ISSUED WITH TRANSMITTAL	AG	AS	RAC

BAFFINLAND IRON MINES CORPORATION

MARY RIVER PROJECT

2017 WORK PLAN
MILNE PORT LAYOUT

Knight Piésold CONSULTING

PIA NO: NB102-181/40
REF NO: NB16-00637

FIGURE 1

REV: 0

HATCH BUILDING
EMERGENCY RESPONSE OFFICE
ACCOMMODATION COMPLEX
WELDING SHOP
MAINTENANCE BUILDING
"NEW" ADDITIONAL TRUCK WASH BUILDING
FUEL TANK FARM
TRUCK WASH BUILDING
TOROMONT SHOP
POWER HOUSE
MS-C-C
SEWAGE TRUCK BUILDING
WATER BUILDING
"NEW" CRUSHER PAD EXPANSION
CRUSHER AND ORE LOADING PAD
TRUCK WEIGH SCALE
RUN OF MINE
FINE STOCKPILE
LUMPS STOCKPILE
KM 97 BORROW LOCATIONS
WASTE MANAGEMENT FACILITY
EXISTING LAYDOWN AREA
SITE SERVICES GARAGE
RAW WATER INTAKE
RAW WATER PUMP HOUSE
"NEW" HAZARDOUS WASTE STORAGE AREA (FORMER BLADDER FARM)
AERODROME APRON
QUARRY QM02
NEW ROAD ALIGNMENT
EXPLORATION CAMP FACILITIES
"NEW" TIRE SHOP (SEACAN CONSTRUCTION)
WASTE WATER TREATMENT FACILITY
POLISHING WASTE STABILIZATION PONDS (PWSPs)
HELIPADS
CONSTRUCTION LAYDOWN AREA
CAMP INFRASTRUCTURE
"NEW" ADDITIONAL TRUCK WASH BUILDING
AERODROME RUNWAY
TRUCK WEIGH SCALE
ORE CRUSHING AND LOADING
MINE OPERATIONS OFFICE
POLISHING WASTE STABILIZATION PONDS TREATED WATER DISCHARGE POINT
"NEW" CRUSHER PAD EXPANSION
EXISTING LANDFILL ROAD
ORE CRUSHING SEDIMENTATION POND
EXPLOSIVE MAGAZINE
EXISTING LANDFILL
EFFLUENT DISCHARGE POINT
EMULSION PLANT

UTILITIES INCLUDED:
- POWER GENERATION MODULE
- FUEL TANK FARM & DYKE
- SEWAGE TREATMENT PLANT
- POTABLE WATER TREATMENT PLANT

SITE SERVICE FACILITIES INCLUDING:
- MAINTENANCE BUILDING
- WELDING WORKSHOP
- TRUCK WASH STATION
- TOROMONT SHOP
- EMERGENCY RESPONSE OFFICE

560 000 E
561 500 E
563 000 E
564 500 E
7 914 500 N
7 913 000 N
7 911 500 N

FUTURE WASTE ROCK SEDIMENTATION POND
FUTURE WASTE ROCK FOOTPRINT FOR ERP
DEPOSIT NO.1 MINING LEASE 2484
EXISTING WASTE ROCK FOOTPRINT
TEMPORARY WASTE ROCK SEDIMENTATION POND
WASTE ROCK DUMP BOUNDARY AT THE END OF OPERATION (RAIL PHASE)
NEW HAUL ROAD
PROPOSED FINAL OPEN PIT OUTLINE
110 KM LAYDOWN AREA
QUARRY D1Q1
OPEN PIT DEVELOPMENT
PIT 1 HAUL ROAD
QUARRY D1Q2

LEGEND:
- INUIT OWNED LAND - SURFACE ONLY EXCLUDING MINERALS
- INUIT OWNED LAND - SURFACE AND SUBSURFACE INCLUDING MINERALS
- WATER
- BORROW AREAS (2013 UNDER Q10C3001)
- QUARRY AREA (EXISTING UNDER Q13C301)
- WASTE STORAGE AREA
- RIVER/STREAM/DRAINAGE
- ROAD
- QIA SURFACE COMMERCIAL LEASE BOUNDARY
- "NEW" FEATURE

NOTES:
1. COORDINATE GRID IS UTM NAD83 ZONE 17N.
2. TOPOGRAPHY PROVIDED BY EAGLE MAPPING (2005).
3. PLAN BASED ON INFORMATION PROVIDED BY HATCH, DATED (JAN 13, 2015).
4. CONTOUR INTERVAL IS 2.5 METRES.
5. ALL SAMPLE ID'S SHOWN IN BRACKETS REPRESENT THE TYPE B WATER LICENCE(S) MONITORING POINTS. ALL OTHERS ARE MONITORING POINTS AS PER THE TYPE A WATER LICENCE (2AM-MRY1325).

SCALE A: 300 150 0 500 1000 1500 m

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED
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BAFFINLAND IRON MINES CORPORATION

MARY RIVER PROJECT

2017 WORK PLAN
MINE SITE LAYOUT

Knight Piésold CONSULTING

PIA NO.	REF NO.
NB102-181/40	NB16-00637

FIGURE 2 REV 0

Appendix B:

2017 Marginal Closure and Reclamation Financial Security Estimate

Project Report
Date: 2 November 2016

2017 Marginal Closure and Reclamation Financial Security Estimate

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1. Introduction

1.1 Purpose

The purpose of the 2017 Marginal Closure and Reclamation Financial Security Estimate ('2017/18 ASR Estimate') is to provide a summary of the closure and reclamation security estimated to be required for the Mary River Project (the Project) to meet reclamation objectives as outlined in the Interim Mine Closure and Reclamation Plan (BAF-PH1-830-P16-0012). The total 'global' closure and reclamation security estimated to be required takes into consideration planned work in 2017/18 being conducted under Type "A" Water Licence 2AM-MRY1325, Amendment No. 1 and the Qikiqtani Inuit Association's (QIA) Commercial Lease No. Q13C301 in addition to previous Project closure and reclamation security.

The 2017/18 ASR Estimate is intended to be inclusive of all closure and reclamation costs estimated to be required for a 3rd Party Contractor to perform the work in a 'worst-case' scenario for all disturbed areas, project components and project activities existing on the Mary River Project site upon conclusion of the 2017 Work Plan. For the purpose of this document, the material changes associated to security from the 2017 Work Plan are termed, '2017 Work Plan Security Estimate'.

In order for the 2017/18 ASR Estimate to accurately reflect the total 'global' closure and reclamation security estimated to be required for the Project in 2017/18, this document also provides a summary of the identified Project components and activities that have materially changed from the position presented by Baffinland Iron Mines Corporation (Baffinland) during the 2016/17 Annual Security Review (ASR)[1]. Based on these identified material changes, the resulting associated security impacts (+/- $) are also presented for incorporation into the 2017/18 ASR Estimate to ensure accurate representation of the Project based on current planning. For the purpose of this document, this process was termed the '2016/17 ASR Reconciliation'. The combination of the 2016/17 ASR Reconciliation and 2017 Work Plan Security Estimate form the 2017/18 ASR Estimate.

1.2 Regulatory Context

An annual adjustment to reclamation security is required under Section 9.2 of the Commercial Lease, No. Q13C301, agreed to between Baffinland and the QIA, as well as a requirement under the Type 'A' Water Licence 2AM-MRY1325, Amendment No. 1 (Part J, Item 3). The 2017/18 ASR Estimate therefore represents Baffinland's proposed annual adjustment to reclamation security to account for work conducted on site to date and planned work to be completed as described in the 2017 Work Plan.

[1] As described in 2016 Marginal Closure and Reclamation Financial Security Estimate (H349001-1000-07-126-0002, Rev 0) and NWB Letter on February 5, 2016 Re: Licence No. 2AM-MRY1325, Baffinland Iron Mines Corporation Type "A" Water Licence, Mary River Mine Project: Direction from Nunavut Water Board Under the Annual Security Review Process Established Under Part C and Schedule C of the Water Licence.

The 2017/18 ASR Estimate has been developed in accordance with conditions outlined within Section 9.2 of the Commercial Lease; conditions outlined within Type "A" Water Licence 2AM-MRY1325, Amendment No. 1, Part J, Item 3 and Schedule J; and in consideration of the QIA Abandonment and Reclamation (A&R) Policy (QIA, 2013). The amount of security estimated to be required is based on an estimate of the highest reclamation liability in the upcoming year[2] or 'worst case' scenario.

1.3 Applied Rates

The 2017/18 ASR Estimate was developed by applying the direct cost unit rates established in the 2014 Complete Project Financial Security Assessment[3] to quantities of functional units of each activity or project component proposed/changed under the 2017/18 ASR Estimate unless indicated otherwise. Based on the direct cost estimate, indirect costs required to support direct cost work were accounted for proportional to assumptions and considerations applied in the 2014 Complete Project Financial Security Assessment. Indirect costs are additional costs outside of costs required for direct reclamation activities that are required to ensure reclamation objectives are met. The sum of direct and indirect estimated costs for the 2017/18 ASR Estimate was then differentiated based on geographic liability allocation (IOL vs. Crown land) and relation to land or water liability. Appendix A presents the Mary River Project Estimate Breakdown Structure (EBS) which demonstrates the results of this process for all activities or project components proposed under the 2017/18 ASR Estimate and all previous project financial security liabilities as described in previous ASR submissions.

All costs in Canadian Dollars (CAD). All monetary totals rounded to nearest '000.

1.4 Document Structure

The following outlines the structure of the 2017/18 ASR Estimate document:

- Section 1 presents the purpose, regulatory context, applied rates used, and document structure applicable to the 2017/18 ASR Estimate;
- Section 2 describes the '2016/17 ASR Reconciliation' process, and its resulting impacts to the 2017/18 ASR Estimate;
- Section **Error! Reference source not found.** provides a summary of the financial security estimated to be required for marginal closure and reclamation liability increase associated with the Mary River Project 2017 Work Plan ('2017 Work Plan Security Estimate');
- Section 4 summarizes net impacts to the 2017/18 ASR Estimate associated with 2016/17 ASR Reconciliation and 2017 Work Plan Security Estimate; and
- Section 5 lists supporting documentation that was used to determine costs and quantities for the purpose of the 2017/18 ASR Estimate.

[2] As per Type 'A' Water Licence 2AM-MRY1325, Amendment No. 1, Schedule C, Part 6, Item c.

[3] As described in 2014 Complete Project Financial Security Assessment, H349000-1000-07-126-0018, Rev.1. Hatch. Submitted to parties October 31, 2014.

2. 2016/17 ASR Reconciliation

In order for the 2017/18 ASR Estimate to accurately reflect the total 'global' closure and reclamation security estimated to be required for the Project in 2017/18, a 2016 Annual Security Audit of the Project sites was conducted September 14 to 21, 2016 by Baffinland and QIA representatives. The purpose of the 2016 Annual Security Audit was to identify Project components and activities that have materially changed from the position presented by Baffinland during the 2016/17 ASR. Based on these identified material changes, the resulting associated security impacts (+/- $) were determined, which are presented below for proposed incorporation into the 2017/18 ASR Estimate to ensure accurate representation of the Project based on current planning.

The nature of the changes found during the 2016/17 ASR Reconciliation process primarily relate the removal of the direct and indirect cost allocations captured in the position presented by Baffinland during the 2016/17 ASR related to components or activities that, due to changes in project planning, have not occurred to-date and are not anticipated to occur in 2017/18 or have been superseded by a more current/accurate allocation. The items to be removed from the 2017/18 ASR Estimate due to the 2016/17 ASR Reconciliation process primarily relate to borrow and quarry areas.

An itemized list of the of cost allocations that were removed, added and/or modified is presented in sub-section 2.1.

2.1 Direct Cost Items Removed from Estimate

This sub-section describes the changes to direct cost assumptions/quantities proposed to be captured by the 2017/18 ASR Estimate based on the results of the 2016/17 ASR Reconciliation.

Identified changes resulted in credit or removal of direct costs items allocated in previous ASR estimates that due to changes in project planning, have not occurred to-date and are not anticipated to occur in 2017/18.

2.1.1 Grade and Re-Contour

The position presented by Baffinland during the 2016/17 ASR allocated a total of $185,000 in direct costs to account for grading and re-contouring of disturbed areas that have not been disturbed and are not anticipated to be disturbed related to the Mary River Project. An itemized list of this reduction is presented in Table 2-1. For the purpose the 2017/18 ASR Estimate, these areas are no longer envisioned as requiring grading and re-contouring or have been superseded by a more current/accurate allocation.

Table 2-1. Disturbed Areas Removed from the EBS

Description	Unit Rate ($)	Quantity (m^2)	Total Cost ($)[1]
Grade and Contour			
Q9 Quarry	1.81	15,166	27,450
Q14 Quarry	1.81	13,440	24,326
Q15 Quarry	1.81	10,680	19,331
P5 Borrow Source	1.81	4,600	8,326
P6 Borrow Source	1.81	7,500	13,575
P7 Borrow Source	1.81	8,100	14,661
P8 Borrow Source	1.81	8,385	15,177

Description	Unit Rate ($)	Quantity (m^2)	Total Cost ($)[1]
P10 Borrow Source	1.81	19,344	35,013
P13 Borrow Source	1.81	8,456	15,305
P14 Borrow Source	1.81	3,160	5,720
P15 Borrow Source	1.81	3,300	5,973
	TOTAL	**102,131**	**185,000**

NOTES:
1) Grand total rounded to nearest '000

3. 2017 Work Plan

3.1 Introduction

The purpose of this section of the document is to provide a summary of the additional financial security estimated to be required for work items described in the Mary River Project 2017 Work Plan (November 4, 2016). The estimated marginal closure and reclamation financial security required to account for 2017 planned work (aka. The '2017 Work Plan Security Estimate') is intended to be aggregated with the results of the 2016/17 ASR Reconciliation process (described in Section 2) and previous Project closure and reclamation security bonding. The combination of the 2016/17 ASR Reconciliation results and the 2017 Work Plan Security Estimate form the basis of the 2017/18 ASR Estimate. The result of this approach, the estimated project-wide or 'global' closure and reclamation security bonding totals for the Mary River Project to-date, are presented in Section 4.

A detailed description of the work activities captured in the 2017 Work Plan Security Estimate are described in the Baffinland 2017 Work Plan and are summarized in Section 3.2 below.

3.1.1 Closure Scenario

The 2017 Work Plan Security Estimate is based on a scenario that assumes all planned activities for 2017 Work Plan have taken place on site and all material/consumables (excluding fuel) that are mobilized to site in 2016 are in full inventory. All other assumptions relating to the estimation of direct and indirect, including fuel, associated with the 2017 Work Plan Security Estimate are consistent with rates and assumptions established in the 2014 Complete Project Financial Security Assessment and previous ASR documentation unless noted otherwise.

3.2 2017 Planned Activities

As described in the 2017 Work Plan, planned work in 2017/18 is being conducted under the amended Project Certificate No.005, QIA Commercial Lease No. Q13C301, Type 'A' Water Licence 2AM-MRY1325, Amendment No. 1 and Type 'B' Water Licence 8BC-MRY1416. Planned work includes:

- Development and operation of the mine, ore crushing and land transportation, stockpiling and marine shipment of ore.
- The continued development and construction of infrastructure required at Milne Port and the Mary River Mine Site (Mine Site) and along the Tote Road for the Mary River Project.
- Mobilization of additional 49 person soft-wall camp at Milne Port and continued operation of Mine Site and Milne Port Camps to support ongoing operations and construction

activities which will include the use of water and deposition of waste as authorized under existing permits.

- On-going operation of permitted quarry and borrow sources; there are also additional planned quarries or borrow areas along the Tote Road that are identified and are to be utilized during 2017.
- At Milne Port, vessels carrying fuel, equipment and supplies for use at the Mine Site and Milne Port will arrive during open water (approximately between mid-July and mid-October 2017). Material, fuel and supplies required for operational and construction activities will be transported to the Mine Site year round via the Tote Road.
- Geotechnical drilling may be required to support engineering, design and construction activities of Project.
- Ongoing environmental effects studies and baseline data collection will continue to support the construction and operation of the Project as well as for future engineering requirements.
- Continued environmental monitoring in accordance with the approved Project Certificate, licenses, authorizations, management plans and environmental effects monitoring plans.
- On-going exploration activities including mapping, prospecting, sampling, and geophysics. There is the potential for a drilling and/or trenching program but these items are not yet finalized.

A detailed description of these work activities, which are captured in the 2017 Work Plan Security Estimate, are described in the Baffinland 2017 Work Plan.

3.3 2017 Work Plan Security Estimate Assumptions

3.3.1 Direct Cost Assumptions

The following sections describe the assumptions used to establish the direct costs allocated in the 2017 Work Plan Security Estimate based on the 2017 Work Plan. Please refer to Appendix A for details of this cost allocation based on the EBS Breakdown Structure, Appendix B for locations of below noted facilities, and Appendix C for supporting documentation relating to estimated unit quantities (where available). Direct cost allocations were applied to quantities as indicated in the 2017 Work Plan and consistent with the direct cost assumptions described in the 2014 Complete Project Financial Security Assessment.

3.3.1.1 Buildings and Foundations

The 2017 Work Plan Security Estimate allocates $331,000, plus proportional cover material application costs, in direct costs to account for a marginal increase of buildings and foundations associated with the 2017 Work Plan. This marginal increase of buildings and foundations is itemized in the EBS as presented in Appendix A. This additional cost allocation is based on:

- Mobilization and deployment of 49-person soft-wall camp at Milne Port at an assumed footprint of 950 m^2.

- Assembly of a tire shop at the Mine Site using sea can construction at the assume dimensions of 25m x 20m.
- Development of an additional Truck Wash Building at the Mine Site using fold away type construction (contaminated), precast foundations with gravel base, and an assumed footprint of 1500 m^2.

A summary of security costs associated with the marginal increase of buildings and foundations associated with the 2017 Work Plan is shown in Table 3-1.

Table 3-1: Summary of Marginal Increase of Buildings and Foundation Areas with Associated Unit Rates

Description	Unit Rate Type	Unit Rate ($)	Quantity (m^2)	Cost ($)[1]
49 Person Camp at Milne Port	Soft Walled Building (tent) Not Contaminated	47.51	950	45,135
Assembly of a tire shop at Mine Site	ISO Container	29.69	500	14,845
Additional Truck Wash Building at Mine Site	Fold-Away Building (Contaminated)	142.41	1,500	213,615
Additional Truck Wash Building at Mine Site	Pre-cast Foundations	38.47	1,500	57,705
		TOTAL	**4,450**	**331,000**

NOTES:
1) Grand total rounded to nearest '000

3.3.1.2 Mechanical and Mobile Equipment

The 2017 Work Plan Security Estimate allocates $475,000, plus cover material application costs, in direct costs to account for a marginal increase of mechanical and mobile equipment as itemized in the 2017 Work Plan. This cost allocation is based on an additional 105 pieces of mechanical or mobile equipment mobilized to site in 2017 and the addition to three (3) pieces of 'Heavy Mobile Equipment', owned by 3rd Party, to align with the 'Typical' 3rd Party equipment fleet recommended to be adopted by Hatch and Arktis in Mary River Financial Security Estimate – Preliminary Path Forward on Items with High Uncertainty, H349000-1000-07-220-0005, Revision 2.

It is noted detailed design for the additional 'cross-conveyor' being constructed in 2017 at Milne Port has yet to be completed. Therefore for the purpose of the 2017 Work Plan Security Estimate, it was assumed the cross-conveyor is one sixth the length of the existing reclaim ship loader conveyor at Milne Port at the prorated version of the same unit rate.

A summary of the marginal increase of costs associated with mechanical or mobile equipment and associated unit rates is shown in Table 3-2.

Table 3-2: Summary of Marginal Increase of Mechanical and Mobile Equipment with Associated Unit Rates

Description	Unit Rate Type	Unit Rate ($/pcs)	Quantity (pcs)	Cost ($)[1]
Truck Wash System for New Truck Wash Building	Medium Mechanical Equipment	4,261.34	1	4,261
Grader	Heavy Mobile Equipment	2,618.87	1	2,619
777 Haul Truck	Heavy Mobile Equipment	2,618.87	1	2,619
D10 Dozer	Heavy Mobile Equipment	2,618.87	1	2,619

Description	Unit Rate Type	Unit Rate ($/pcs)	Quantity (pcs)	Cost ($)[1]
Ore Haul Trucks	Heavy Mobile Equipment	2,618.87	8	20,951
Ore Haul Truck B-Train Trailer	Medium Mobile Equipment	1,494.13	8	11,953
Fuel/Lube Truck	Heavy Mobile Equipment	2,618.87	1	2,619
Forklift	Medium Mobile Equipment	1,494.13	2	2,988
Telehandler	Heavy Mobile Equipment	2,618.87	1	2,619
Mechanics Truck (with crane and compressor)	Medium Mobile Equipment	1,494.13	1	1,494
Passenger Bus	Medium Mobile Equipment	1,494.13	1	1,494
Feeder (small)	Medium Mechanical Equipment	4,261.34	3	12,784
Jump Conveyor	Medium Mechanical Equipment	4,261.34	12	51,136
Cross Conveyor	Reclaim Conveyor	1,329,441.31	0.17 (1 psc)	221,574
Screener	Medium Mechanical Equipment	4,261.34	1	4,261
992 Loader	Heavy Mobile Equipment	2,618.87	4	10,475
Cone Crusher	Medium Mechanical Equipment	4,261.34	1	4,261
Zoom Boom	Heavy Mobile Equipment	2,618.87	1	2,619
Excavators	Heavy Mobile Equipment	2,618.87	2	5,238
Chain Conveyor	Medium Mechanical Equipment	4,261.34	2	8,523
Pick Up Truck	Light Mobile Equipment	941.09	12	11,293
Frost Fighter	Light Mechanical Equipment	1,980.80	20	39,616
Light Plant	Light Mechanical Equipment	1,980.80	20	39,616
3rd Party Heavy Mobile Equipment (make up for 'typical' fleet)	Light Mechanical Equipment	2,618.87	3	7,857
		TOTAL	**108**	**475,000**

NOTES:
1) Grand total rounded to nearest '000

Refer to Appendix A for an item by item breakdown of the allocation of direct cost relating to mechanical or mobile equipment reclamation.

3.3.1.3 Cabling

The 2017 Work Plan Security Estimate allocates $185,000 to account for additional cabling and lighting being constructed in 2017 at Milne Port and the Mine Site. This cost allocation is based on the assumption 3.5 km of cabling/lighting will be installed at Milne Port and 3.5 km of cabling/lighting will be installed at Mine Site for safety purposes. A summary of the marginal increase of cabling in the 2017 Work Plan Security Estimate is shown in Table 3-3.

Table 3-3: Summary of Marginal Increase of Site Works with Associated Unit Rates

Description	Unit Rate Type	Unit Rate ($/m)	Quantity (m)	Cost ($)[1]
Lighting and Cabling at Mine Site	Cable	$26.49	3,500	92,715
Lighting and Cabling at Milne Port	Cable	$26.49	3,500	92,715
		TOTAL	**7000**	**185,000**

NOTES:
1) Grand total rounded to nearest '000

3.3.1.4 *Consumables*

The position presented by Baffinland during the 2016/17 ASR directly assigned costs for reclamation activities associated with disposal of consumables stored on-site in relation to the Project. Although by definition consumables are a commodity that is intended to be used up relatively quickly, for the purpose of accounting for the 'worst case' scenario for the Project it was determined that a total of $700.80 per bed space available on site be allocated to account for consumable removal and reclamation during closure activities. This cost is inclusive of:

- Disassembly (if required), load, transport of consumables – $577.99/bed space;
- Fill application for additional compacted volume of material requiring disposal on-site – $67.20/bed space;
- Mobilization/demobilization of workers required for the task – $14.87/bed space; and
- Worker accommodation and camp operation – $40.74/bed space.

Allocation also includes Mobilization and Demobilization of Equipment and Materials by Sealift (+10%), Contingency (+12.5%) and Supervision, Project Management & Contract Administration (+9.4%) as these are applied as part of the multiplier application to total direct costs. A summary of the marginal increase of consumables in the 2017 Work Plan Security Estimate is shown in Table 3-4.

Table 3-4: Summary of Marginal Increase of Consumables with Associated Unit Rates

Description	Unit Rate Type	Unit Rate ($/ea)	Quantity (ea)	Cost ($)[1]
Additional 49 Bed Spaces	Consumables	$700.80	49	34,339.20
		TOTAL	**49**	**34,000**

3.3.1.5 *Site Works*

The 2017 Work Plan Security Estimate allocates $280,000 to account for application of cover material due to the marginal increase of demolition materials to be disposed of on-site and reclamation of additional disturbed areas. A summary of the marginal increase of these "Site Works" in the 2017 Work Plan Security Estimate is shown in Table 3-5.

Table 3-5: Summary of Marginal Increase of Site Works with Associated Unit Rates

Description	Unit Rate Type	Unit Rate ($/m^2)	Quantity (m^2)	Cost ($)[1]
2017 Work Plan Demolition Materials	Fill Application	44.37	1,095	48,585
Q1 Quarry (marginal increase to existing)	Grade and Re-Contour	1.81	6,000	10,860
Q7 Quarry	Grade and Re-Contour	1.81	2,000	3,620
Q11 Quarry	Grade and Re-Contour	1.81	2,000	3,620
Q18 Quarry	Grade and Re-Contour	1.81	2,000	3,620
QMR2 (marginal increase to existing)	Grade and Re-Contour	1.81	6,000	10,860
Km 2 Borrow Source (marginal increase to existing)	Grade and Re-Contour	1.81	1,000	1,810
Km 97 Borrow Source (marginal increase to existing)	Grade and Re-Contour	1.81	1,000	1,810
Expansion of Crusher Pad Storage Area - Phase 1	Grade and Re-Contour	1.81	8,200	14,842
Expansion of Crusher Pad Storage Area - Phase 2	Grade and Re-Contour	1.81	17,500	31,675
Expansion of Ore Stockpile Storage Area - Phase 1	Grade and Re-Contour	1.81	36,900	66,789
Expansion of Ore Stockpile Storage Area - Phase 2	Grade and Re-Contour	1.81	45,100	81,631
			TOTAL	**280,000**

NOTES:

1) Grand total rounded to nearest '000

3.3.2 Indirect Cost Assumptions

The following section describes the assumptions used to establish the indirect costs allocated for the purpose of the 2017 Work Plan Security Estimate. Unless noted otherwise, see the 2014 Complete Project Financial Security Assessment (H349000-1000-07-126-0018, Rev. 1) for further supporting information on the specific indirect unit rates and multipliers used below.

3.3.2.1 On-Site Fuel Demobilization and Reclamation Fuel Mobilization

The 2017 Work Plan Security Estimate allocates an additional $28,000 to account for the mobilization of fuel required for the marginal increase in reclamation activities captured in the 2015 Work Plan Addendum.

The additional $28,000 allocation for fuel mobilization is based on the cost of mobilizing 50% of the fuel required for marginal reclamation and closure activities, including direct activities, power generation, and heat production. Direct marginal reclamation activities are estimated to require 86,136L of Type-1 fuel (see Appendix A). Marginal increases in camp operation during reclamation is estimated to require an additional 481 person-days on-site. Each person-day on site is assumed to consume 116L of Type-1 fuel for heat and power generation. Fuel mobilization rate is assumed to be $0.40/L.

See Appendix A for itemized person-day and fuel consumption quantities per 2017 Work Plan item.

3.3.2.2 Mobilization of Workers Required for Reclamation

The 2017 Work Plan Security Estimate allocates an additional $40,000 for worker mobilization. Detailed assumptions for mobilization of workers required for marginal closure and reclamation activities are:

Person-hours required to complete direct cost related on-site marginal reclamation activities is estimated to be 4,806 hrs or 481 person-days (based on 10hr/day productivity). See Appendix A for itemized person-day allocations per 2017 Work Plan item.

- Assume 70% of hires (337 person-days) are from southern communities and 30% (145 person-days) are from northern communities.
- Cost per person-day on site for worker mobilization from southern communities is $85.45/person-day on-site.
- Cost per person-day on site for worker mobilization from northern communities is $75.00/person-day on-site

3.3.2.3 Worker Accommodation & Camp Operation

The 2017 Work Plan Security Estimate allocates an additional $108,000 for worker accommodation and camp operation during marginal reclamation activities associated with the 2017 Work Plan. Assumptions for worker accommodation and camp operation are:

- Person-hours required to complete direct cost related on-site marginal reclamation activities is estimated to be 4,806 hrs or 481 person-days (based on 10hr/day productivity). See Appendix A for itemized person-day allocations.

- Cost for accommodation and camp operation is assumed to be $225.50/person-day and includes camp maintenance, catering, housekeeping, and fuel costs.

3.3.2.4 *Contaminated Soil*

The 2017 Work Plan Security Estimate allocates an additional $63,000 to account for on-site treatment of the marginal increase of known contaminated soil on-site. This cost is based on contaminated soil treatment unit rate of $14.78/$m^3$ and an assumption of an increase of 4,232 m^3 of additional contaminated soil being present at the conclusion of the 2017 Work Plan. This 4,232 m^3 of additional known contaminated soil is attributed to a Type-1 fuel release within the existing secondary containment at the Milne Port Bulk Fuel Steel Tank Farm in 2016 (Spill 16-283) and the assumption that half of the soil within the berm was contaminated to a depth of 1/3 of a meter.

3.3.2.5 *Mobilization and Demobilization of Equipment and Materials*

The 2017 Work Plan Security Estimate allocates an additional $117,000 to account for mobilization and demobilization of equipment and materials. These are indirect costs for moving equipment and materials to and from the reclamation site. The amount is based the assumption that mobilization and demobilization cost are estimated as 10% of total direct costs.

3.3.2.6 *Supervision, Project Management and Contract Administration*

The 2017 Work Plan Security Estimate includes a project supervision, management and contract administration indirect cost allowance of $116,000 or 9.4% of total direct costs, contaminated soil treatment costs, care and maintenance costs, and closure monitoring/reporting costs. Project supervision, management and contract administration indirect costs include, but are not limited to:

- Contract strategy, administration and expediting;
- Construction logistics, planning, scheduling, supervision and manpower forecasts;
- Labour relations, safety;
- Field office management, temporary facilities;
- Materials receiving and warehousing;
- Progress monitoring, trending and reporting;
- Cost performance monitoring, trending and claims processing; and
- Quality assurance.

3.3.2.7 *Engineering Fees*

The 2017 Work Plan Security Estimate includes an engineering, design and execution planning indirect cost allowance of $46,000 or 3.9% of the total direct costs.

3.3.2.8 *Contingency*

The 2017 Work Plan Security Estimate includes an additional contingency of $188,000 or 12.5% of the total of direct costs, mobilization and demobilization of equipment and materials

costs, worker accommodation and camp operation costs, mobilization of workers costs, care and maintenance costs, and closure monitoring/reporting costs.

3.3.3 Exclusions

The listed activities are recognized by Baffinland as being required to be conducted in an unforeseen closure and reclamation scenario but additional costs have not been included in the 2017 Work Plan Security Estimate on the basis that it is Baffinland's position that the 2017 Work Plan Security Estimate activities do not warrant additional cost allocations for these activities. Excluded activities from the 2017 Work Plan Security Estimate are:

- Off-Site Disposal of Hazardous and Non-Hazardous Waste (including Ammonium Nitrate and explosives).
- Short-Term Care and Maintenance, Closure and Post Closure Monitoring and Reporting.

4. 2017 Marginal Reclamation and Closure Security Cost Summary

The 2017/18 ASR Estimate is inclusive of all closure and reclamation costs estimated to be required for a 3rd Party Contractor to perform the work in a 'worst-case' scenario for all disturbed areas, project components and project activities existing on the Mary River Project site upon conclusion of the 2017 Work Plan including legacy exploration phase liabilities.

Table 4-1 presents the total closure and reclamation security determined to-date (Column D) compared to the proposed adjustments to be posted as a result of the 2017/18 ASR Estimate (Column G).

Table 4-2 presents a summary of the 2017/18 ASR Estimate to support the 2017 Work Plan in a categorized breakdown format that was estimated in accordance to principles, methodology, and closure objectives defined within the Mary River Project Interim Closure and Reclamation Plan (BAF-PH1-830-P16-0012).

Table 4-1: Mary River Project 'Global' Closure and Reclamation Security Summary[1]

	A	B	C	D	E	F	G
	Authorization	**Liability**	**Global Estimate from 2016/17 ASR ($)**	**2017/18 ASR Marginal Estimate ($)**	**Total 'Global' Estimated Security for 2017/18 ($)**	**Total Posted ($)**	**Adjustment to be Posted ($)**
					C + D		**E - F**
1	Type A 2AM-MRY1325	IOL[2]	45,055,000	1,880,000	46,935,000	48,846,000	(1,911,000)
2		Crown	1,210,000	-	1,210,000	1,210,000	-
3		Water	1,342,000	-	1,342,000	-	-
4		Land	44,923,000	1,880,000	46,803,000	-	-
5	*Subtotal Type A*		*46,265,000*	*1,880,000*	*48,145,000*	*50,056,000*	*(1,911,000)*
6	Type B Construction 2BC-MRY1416	IOL[2]	-	-	-	-	-
7		Crown	-	-	-	147,000	(147,000)
8		Water	-	-	-	-	-
9		Land	-	-	-	-	-
10	*Subtotal Type B Construction*		-	-	-	-	*(147,000)*
11	Type B Exploration 2BE-MRY1421 [3]	IOL	165,000	-	165,000	-	165,000
12		Crown	1,082,000	-	1,082,000	1,250,000	(168,000)
13		Water	18,000	-	18,000	-	-
14		Land	1,229,000	-	1,229,000	-	-
15	*Subtotal Type B Exploration*		*1,247,000*	-	*1,247,000*	*1,247,000*	*(3,000)*
16	DFO Security Associated with Ore Dock	IOL[2]	-	-	-	-	-
17		Crown	563,000	-	563,000	563,000	-
18		Water	563,000	-	563,000	563,000	-
19		Land	-	-	-	-	-
20	*Subtotal DFO*		*563,000*	-	*563,000*	*563,000*	-
21	AANDC Land Lease 47H/16-1-2 [4,5]	IOL[2]	-	-	-	-	-
22		Crown	4,975,000	-	4,975,000	4,975,000	-
23		Water	-	-	-	-	-
24		Land	4,975,000	-	4,975,000	4,975,000	-
25	*Subtotal AANDC Land Lease*		*4,975,000*	-	*4,975,000*	*4,975,000*	-
27	**GRAND TOTAL**		**53,050,000**	**1,880,000**	**54,930,000**	**58,721,000**	**(2,061,000)**

NOTES:
1) Totals rounded to nearest '000 in CAD
2) Security relating to IOL held by Qikiqtani Inuit Association (QIA) under Commercial Lease No. Q13C301
3) As per Mary River Exploration Project Closure and Reclamation Plan (BAF-PH1-830-P16-0038, Rev 1)
4) Posting process for security relating to AANDC Land Lease 47H/16-1-2 phased into a 2-step approach. Phase 1 to be posted November 2016.
5) As per Closure and Reclamation Strategy and Financial Security Estimate for Nunavut Lease #47H/16-1-2 (H349001-2000-07-126-0001, Rev.0)

Table 4-2: 2017 Estimated Closure and Reclamation Security Detailed Summary[1]

Cost	Global Estimate from 2016/17 ASR ($)	2017/18 ASR Marginal Estimate ($)	Total 'Global' Estimated Security for 2017/18 ($)	IOL	Crown Land	Water Liability	Land Liability
Direct Costs				**Direct Costs**			
Project Wide	1,395,000	83,000	1,478,000	1,254,000	224,000	-	1,478,000
Milne Port	5,670,000	591,000	6,261,000	6,261,000	-	227,000	6,034,000
Construction Facilities & Services	2,102,000	45,000	2,147,000	2,147,000	-	-	2,147,000
Mine Site	8,205,000	621,000	8,826,000	8,826,000	-	1,115,000	7,711,000
Tote Road	4,695,000	(166,000)	4,529,000	4,056,000	473,000	-	4,529,000
Mary River Exploration Activities	1,022,000	-	1,022,000	135,000	887,000	15,000	1,007,000
Subtotal	*23,089,000*	*1,174,000*	*24,263,000*	*22,679,000*	*1,584,000*	*1,357,000*	*22,906,000*
Indirect Costs				**Indirect Costs**			
Off-Site Disposal of Waste & Material	1,969,000	-	1,969,000	1,969,000	-	-	1,969,000
Fuel Mobilization and Demobilization	3,152,000	28,000	3,180,000	3,180,000	-	-	3,180,000
Ammonium Nitrate (explosive material)	2,537,000	-	2,537,000	2,537,000	-	-	2,537,000
Contaminated Soil Treatment	239,000	63,000	302,000	302,000	-	-	302,000
Mobilization of Workers Required for Reclamation	988,000	40,000	1,028,000	996,000	32,000	-	1,028,000
Worker Accommodation & Camp Operation	2,560,000	108,000	2,668,000	2,585,000	83,000	-	2,668,000
Mob/Demob of Equipment and Materials by Sealift	2,206,000	117,000	2,323,000	2,253,000	70,000	-	2,323,000
Short Term C&M, Closure Monitoring & Reporting	3,766,000	-	3,766,000	3,647,000	119,000	-	3,766,000
Supervision, PM & Contract Administration	2,256,000	116,000	2,372,000	2,304,000	68,000	-	2,372,000
Engineering Fees	861,000	46,000	907,000	880,000	27,000	-	907,000
Contingency	3,663,000	188,000	3,851,000	3,738,000	113,000	-	3,851,000
Mary River Exploration Activities	225,000	-	225,000	30,000	195,000	3,000	222,000
DFO Financial Security for Ore Dock	563,000	-	563,000	-	563,000	563,000	-
AANDC Land Lease	4,975,000	-	4,975,000	-	4,975,000	-	4,975,000
Subtotal	*29,960,000*	*706,000*	*30,666,000*	*24,421,000*	*6,245,000*	*566,000*	*30,100,000*
TOTAL	**53,049,000**	**1,880,000**	**54,929,000**	**47,100,000**	**7,829,000**	**1,923,000**	**53,006,000**

NOTES:
1) All totals rounded to nearest '000 in CAD

5. Supporting Documents

In addition to information presented within this document, please refer to the following appendices for supporting information:

- Refer to Appendix A for the 2017/18 ASR Estimate Breakdown Structure (EBS).
- Refer to Appendix B for updated 2017 Work Plan Layouts.
- Refer to Appendix C for supporting documentation for estimated quantities including:
  - C.1 Milne Port Ore Stockpile Pad extension sketch
  - C.2 Mine Site Crusher Pad extension sketch

Appendix A:

2017/18 ASR Estimate Breakdown Structure (EBS)

Baffinland

'Mary River Project - Complete Project Security Assesment - Estimate Breakdown Structure'
Issued on November 2, 2017

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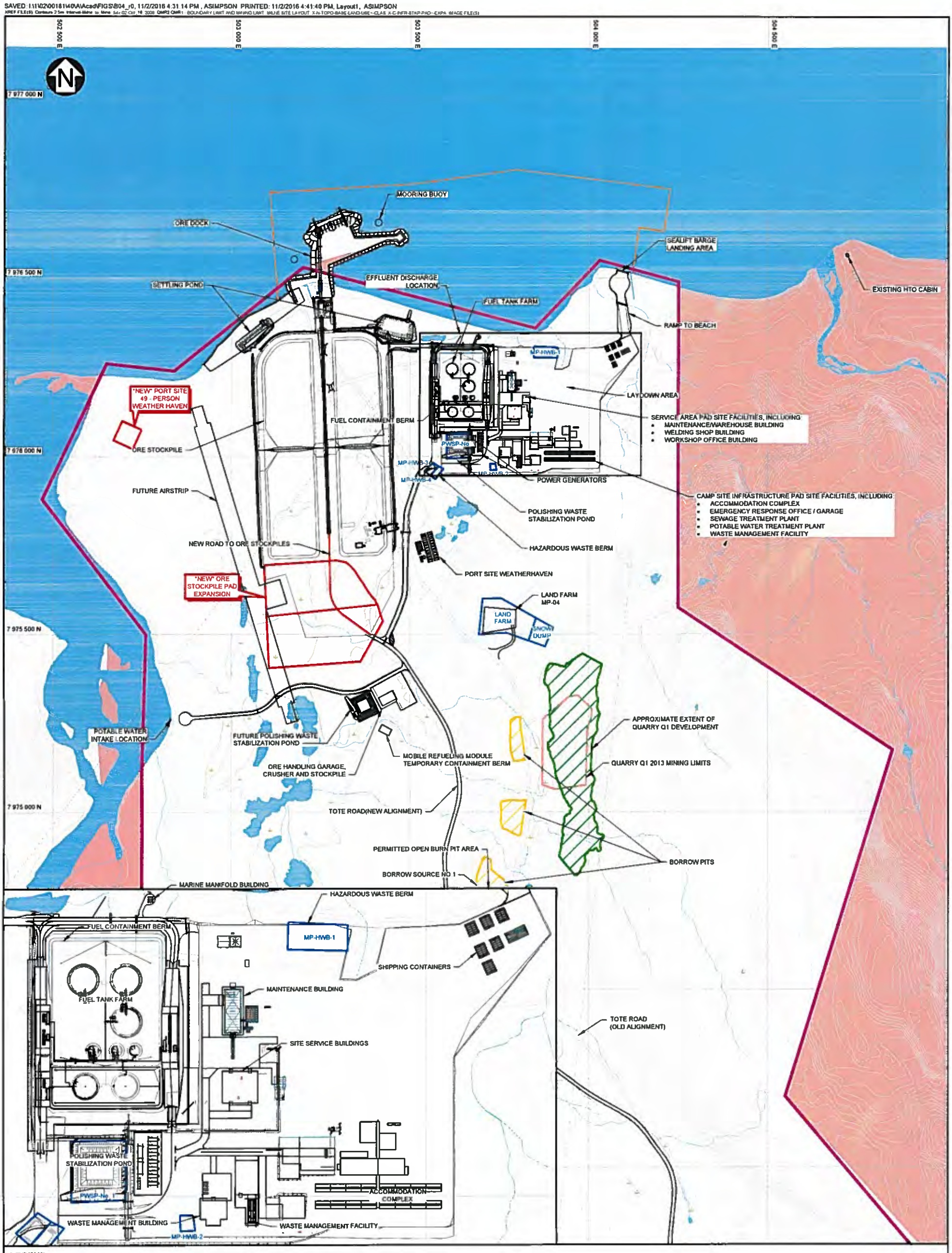
Appendix B

Updated Site Layouts

2017 Work Plan - Mine Site Layout

2017 Work Plan – Milne Port Layout

SAVED I:\1\02\00181\40\A\Acad\FIGS\B04_r0, 11/2/2016 4:31:14 PM, ASIMPSON PRINTED: 11/2/2016 4:41:40 PM, Layout1, ASIMPSON
XREF FILE(S): Contours 2.5m Interval-Metric to Mine_5d-r-02-Oct_16_2008_QMR2 QMR1_BOUNDARY LIMIT AND MINING LIMIT_MILNE SITE LAYOUT_X-N-TOPO-BASE (LANDUSE)~CLAS_X-C-INFR-STRP-PAD~EXPA_IMAGE FILE(S)



LEGEND:

- WATER
- BORROW AREAS (2013 UNDER Q10C3001)
- QUARRY AREA (EXISTING UNDER Q13C301)
- INUIT OWNED LAND - SURFACE ONLY EXCLUDING MINERALS
- WASTE STORAGE AREA
- RIVER/STREAM/DRAINAGE
- ROAD
- QIA SURFACE COMMERCIAL LEASE IMPACT BOUNDARY
- "NEW" FEATURE

NOTES:

1. COORDINATE GRID IS UTM NAD83 ZONE 17N.
2. TOPOGRAPHY PROVIDED BY EAGLE MAPPING (2005)
3. PLAN/SECTION BASED ON INFORMATION PROVIDED BY HATCH, DATED (JAN 31,2014).
4. CONTOUR INTERVAL IS 2.5 METRES
5. ALL SAMPLE ID'S SHOWN IN BRACKETS REPRESENT THE TYPE B WATER LICENCE(S) MONITORING POINTS. ALL OTHERS ARE MONITORING POINTS AS PER THE TYPE A WATER LICENCE (2AM-MRY1325)

SCALE A: 100 50 0 100 200 300 400 500 m

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED
0	02NOV16	ISSUED WITH TRANSMITTAL	AG	AS	RAC

BAFFINLAND IRON MINES CORPORATION

MARY RIVER PROJECT

2017 WORK PLAN
MILNE PORT LAYOUT

Knight Piésold CONSULTING

PIA NO: NB102-181/40
REF NO: NB16-00637

FIGURE 1

REV: 0

HATCH BUILDING
EMERGENCY RESPONSE OFFICE
ACCOMMODATION COMPLEX
WELDING SHOP
MAINTENANCE BUILDING
"NEW" ADDITIONAL TRUCK WASH BUILDING
FUEL TANK FARM
TRUCK WASH BUILDING
TOROMONT SHOP
POWER HOUSE
MS-C-C
SEWAGE TRUCK BUILDING
WATER BUILDING
"NEW" CRUSHER PAD EXPANSION
CRUSHER AND ORE LOADING PAD
TRUCK WEIGH SCALE
RUN OF MINE
FINE STOCKPILE
LUMPS STOCKPILE
KM 97 BORROW LOCATIONS
WASTE MANAGEMENT FACILITY
EXISTING LAYDOWN AREA
SITE SERVICES GARAGE
RAW WATER INTAKE
RAW WATER PUMP HOUSE
"NEW" HAZARDOUS WASTE STORAGE AREA (FORMER BLADDER FARM)
AERODROME APRON
QUARRY QM02
NEW ROAD ALIGNMENT
EXPLORATION CAMP FACILITIES
"NEW" TIRE SHOP (SEACAN CONSTRUCTION)
WASTE WATER TREATMENT FACILITY
POLISHING WASTE STABILIZATION PONDS (PWSPs)
HELIPADS
CONSTRUCTION LAYDOWN AREA
CAMP INFRASTRUCTURE
"NEW" ADDITIONAL TRUCK WASH BUILDING
AERODROME RUNWAY
TRUCK WEIGH SCALE
ORE CRUSHING AND LOADING
MINE OPERATIONS OFFICE
POLISHING WASTE STABILIZATION PONDS TREATED WATER DISCHARGE POINT
"NEW" CRUSHER PAD EXPANSION
EXISTING LANDFILL ROAD
ORE CRUSHING SEDIMENTATION POND
EXPLOSIVE MAGAZINE
EXISTING LANDFILL
EFFLUENT DISCHARGE POINT
EMULSION PLANT

UTILITIES INCLUDED:
- POWER GENERATION MODULE
- FUEL TANK FARM & DYKE
- SEWAGE TREATMENT PLANT
- POTABLE WATER TREATMENT PLANT

SITE SERVICE FACILITIES INCLUDING:
- MAINTENANCE BUILDING
- WELDING WORKSHOP
- TRUCK WASH STATION
- TOROMONT SHOP
- EMERGENCY RESPONSE OFFICE

560 000 E
561 500 E
563 000 E
564 500 E
7 914 500 N
7 913 000 N
7 911 500 N

FUTURE WASTE ROCK SEDIMENTATION POND
FUTURE WASTE ROCK FOOTPRINT FOR ERP
DEPOSIT NO.1 MINING LEASE 2484
EXISTING WASTE ROCK FOOTPRINT
TEMPORARY WASTE ROCK SEDIMENTATION POND
WASTE ROCK DUMP BOUNDARY AT THE END OF OPERATION (RAIL PHASE)
NEW HAUL ROAD
PROPOSED FINAL OPEN PIT OUTLINE
110 KM LAYDOWN AREA
QUARRY D1Q1
OPEN PIT DEVELOPMENT
PIT 1 HAUL ROAD
QUARRY D1Q2

LEGEND:
- INUIT OWNED LAND - SURFACE ONLY EXCLUDING MINERALS
- INUIT OWNED LAND - SURFACE AND SUBSURFACE INCLUDING MINERALS
- WATER
- BORROW AREAS (2013 UNDER Q10C3001)
- QUARRY AREA (EXISTING UNDER Q13C301)
- WASTE STORAGE AREA
- RIVER/STREAM/DRAINAGE
- ROAD
- QIA SURFACE COMMERCIAL LEASE BOUNDARY
- "NEW" FEATURE

NOTES:
1. COORDINATE GRID IS UTM NAD83 ZONE 17N.
2. TOPOGRAPHY PROVIDED BY EAGLE MAPPING (2005).
3. PLAN BASED ON INFORMATION PROVIDED BY HATCH, DATED (JAN 13, 2015).
4. CONTOUR INTERVAL IS 2.5 METRES.
5. ALL SAMPLE ID'S SHOWN IN BRACKETS REPRESENT THE TYPE B WATER LICENCE(S) MONITORING POINTS. ALL OTHERS ARE MONITORING POINTS AS PER THE TYPE A WATER LICENCE (2AM-MRY1325).

SCALE A: 300 150 0 500 1000 1500 m

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED
0	02NOV16	ISSUED WITH TRANSMITTAL	AG	AS	RAC

SAVED: 11/2/2016 11:40 AM ASIMPSON PRINTED: 11/2/2016 3:34:46 PM, Layout1, ASIMPSON
SAVED: 11/2/2016 3:30:38 PM, ASIMPSON PRINTED: 11/2/2016 3:34:46 PM, Layout1, ASIMPSON

BAFFINLAND IRON MINES CORPORATION

MARY RIVER PROJECT

2017 WORK PLAN
MINE SITE LAYOUT

Knight Piésold CONSULTING

PIA NO.	REF NO.
NB102-181/40	NB16-00637

FIGURE 2 REV 0

Appendix C

Supporting Documentation

C.1 Milne Port Ore Stockpile Pad extension sketch

C.2 Mine Site Crusher Pad extension sketch

N

Baffinland

503300 E
503400 E
503500 E
503000 E
503100 E

7976000 N
7975900 N
7975800 N
7975700 N
7975600 N
7975500 N
7975400 N
7975300 N
7975200 N
7975100 N

EXISTING
STOCKPILE
PAD

PHASE 1:
36,900 m2

PHASE 2:
45,100 m2

1 : 2500

TITLE:	PSC STOCKPILE PAD EXPANSION
LOCATION:	MILNE PORT SITE
DATE:	12 / 10 / 2016
DRAFTED BY:	CDT
PHASE 1 AREA:	36,900 m2
PHASE 2 AREA:	45,100 m2
TOTAL AREA:	82,000 m2

LEGEND

- Crest
- Toe
- Road
- Water
- Original Contours
- Fill Area

N

Baffinland

PHASE 2:
17,500 m2

CRUSHER A

CRUSHER B

CRUSHER C

PHASE 1:
8,200 m2

1 : 2000

TITLE:	MR STOCKPILE PAD EXPANSION
LOCATION:	MARY RIVER
DATE:	12 / 10 / 2016
DRAFTED BY:	CDT
PHASE 1 AREA:	8,200 m2
PHASE 2 AREA:	17,500 m2
TOTAL AREA:	25,700 m2

LEGEND

- Crest
- Toe
- Road
- Water
- Original Contours
- Fill Area

Appendix C:

Interim Closure and Reclamation Plan (BAF-PH1-830-P16-0012)

Management Plans not available in compressed version

Appendix D:

Emergency Response Plan (BAF-PH1-840-P16-0002)

Management Plans not available in compressed version

Appendix E:

Spill Contingency Plan (BAF-PH1-830-P16-0036)

Management Plans not available in compressed version

Appendix F:

Option Exercise Notices

OEN APPLICATION FORM

#	Requirement	Response
1	OEN Title.	New Waste Storage Area – Former Mine Site Fuel Bladder Farm
2	General geographic UTM coordinates of the areas subject to amendment.	Corners of the facility are: Northing Easting 1 7914519.2 558352.8 2 7914415.2 558292.1 3 7914437.1 558253.8 4 7914536.6 558320.3
3	A description of the characteristics of the land including acknowledgement and explanation of any environmental sensitivities.	Former fuel bladder farm, fully lined facility. No environmental sensitivities.
4	The specific nature of activities that have historically occurred on the proposed Lands.	Land is disturbed since 2007. Storage of fuel in bladders within engineered lined containment between 2007 and 2014. During 2014, bladders and piping were removed. The engineered lined containment is inspected biannually by a P.Eng registered in NT/NU.
5	The specific nature of activities to be conducted on the proposed Lands.	Storage of waste that would typically include oily water from shop sumps typically stored in one m^3 totes.
6	Proposed duration of the activities.	For next two years.
7	Associated changes to all Environmental Management and Monitoring Plans.	No change is required, area is already routinely monitored.
8	All related Annual Work Plan amendments, if any.	N/A
9	Relevant information concerning financial security, including the Security Deposit.	No change required. Reclamation of lined area and contaminated soil already included in current security estimate.
10	Indicate whether changes are required to existing approvals, licences, plans, permits or authorizations.	No changes required.
11	The anticipated increase or decrease in Rent payment where the increase or decrease is shown compared against the initial Rent payment amount pre-OEN approval.	No change in rent payment. Already designated as an Impact Area.