



Crown-Indigenous Relations
and Northern Affairs Canada

Relations Couronne-Autochtones
et Affaires du Nord Canada

Water Resources Division
Resource Management Directorate
Nunavut Regional Office
918 Nunavut Drive
Iqaluit, NU, X0A 1H0

Your file - Votre référence
2AM-MRY1325
Our file - Notre référence
GCDocs# 123569394

March 15, 2024

Richard Dwyer
Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU, X0B 1J0
E-mail: licensing@nwb-oen.ca

**Re: Crown-Indigenous Relations and Northern Affairs Canada's (CIRNAC)
Reclamation Cost Estimate in support of the Annual Security Review for
Baffinland Iron Mines Corporation's 2024 Work Plan for the Mary River Project,
Water Licence 2AM-MRY1325 Amendment No. 1**

Mr. Dwyer,

Thank you for the invitation to participate in the Mary River Project's 2024 Workplan and Annual Security Review (ASR). Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) examined Baffinland Iron Mines Corporation (BIMC's) 2024 Work Plan submission and updates to the reclamation security estimates for the Mary River Project, pursuant to CIRNAC's responsibilities under Part C and Schedule C of the Water Licence 2AM-MRY1325 – Amendment No. 1.

Summary of 2024 Progress

The total security proposed by BIMC for the 2024 workplan was **\$107,799,674**. It is CIRNAC's position that BIMC's global security amount as proposed is inadequate, with the main areas of disparity being a discrepancy in potentially acid generating (PAG) rock requiring cover, inflation and the application of contingency.

Following a consultative approach, CIRNAC advised BIMC of the need to address their estimate and BIMC has proposed a progressive reclamation approach for closure of the waste rock facility (WRF).

Under this approach, 85% of the exposed PAG rock would be covered by the end of operations in 2024. Further to that, BIMC has increased their estimate for the proposed security to approximately \$125 million, and has committed to providing further



information to the Nunavut Water Board (NWB), CIRNAC and the Qikiqtani Inuit Association (QIA) by March 21, 2024.

If BIMC provides the appropriate and requested documentation for CIRNAC's review and approval, CIRNAC's recommended Global estimate would be approximately **\$134 million**.

Estimate for the 2024 Work Plan

CIRNAC retained support from Atkins Réalis to develop a reclamation cost estimate for the Mary River Project using the RECLAIM 7.0 model. This estimate is intended to incorporate the scope of BIMC's 2024 Work Plan and is provided as a separate document in Annex A of this submission.

This submission includes a reconciled 2022-23 global cost estimate and a 2024 marginal cost estimate. The 2024 global estimate was derived from the documents provided by BIMC.

Documents and files provided by BIMC considered in this review include:

- Updated 2024 Work Plan, dated December 1, 2023, which includes:
 - Appendix A: 2024 Work Plan Site Layouts
 - Appendix B: 2024 Marginal Closure And Reclamation Financial Security Estimate
 - Appendix C: Interim Closure And Reclamation Plan
 - Appendix D: Emergency Response Plan
 - Appendix E: Spill Contingency Plan
- Waste Rock Management Plan – June 2023 through September 2026, Baffinland Iron Mines Mary River Project, WSP Canada Inc., January 2024 (WSP 2024)
- Baffinland letter to CIRNAC titled, 2024 Security Review, Additional Information Requests, dated February 9, 2024 (BIMC 2024a).
- Baffinland letter to CIRNAC titled, Summary of 2024 Waste Rock Management Strategy, dated February 9, 2024 (BIMC 2024b).
- Baffinland letter to CIRNAC titled, 2024 Security Review, Additional Information Requests, dated February 23, 2024 (BIMC 2024c).

Following requests for information made by CIRNAC to BIMC, the following documents were also provided for review and consideration:

- Updated Phase 1 Waste Rock Management Plan (via email on January 18, 2024),
- a proposed deposition strategy and water quality treatment plan map (via emails February 9, 2024),



- a QA/QC plan (via email March 4, 2024),
- an addendum to the QA/QC plan including details on a Trigger Action Response Plan (March 11, 2024)

BIMC proposes consolidating a number of these documents into a formal submission to the NWB on or about March 21, 2024. This date falls beyond the March 15, 2024 deadline for written submissions to the NWB regarding the Licensee's 2024 workplan, however CIRNAC has committed to reviewing those documents following their submission to the Nunavut Water Board and will be in a better position to discuss its final security estimate during the NWB's teleconference on April 9, 2024.

2024 Work Plan

In compliance with the provisions of Part 6 - Total Financial Security Calculation, Schedule C of 2AM-MRY1325 Amendment No.1, CIRNAC's calculated 2024 global estimate based on BIMC's submitted 2024 Work Plan, of that estimate, \$3,517,833 is allocated to Crown Liability. BIMC provided CIRNAC and QIA a WRF QA-QC Monitoring Plan (Monitoring Plan) in support of their 2024 Annual Security Estimate. In conjunction with the above, Baffinland proposed progressive reclamation monitoring to provide accounting of the progressive reclamation activities on site to confirm alignment with the 2024 Waste Rock Management Strategy. This monitoring would be rolled up quarterly for CIRNAC and QIA to review.

The total security proposed by BIMC in February 2024 was \$125,828,974. Based on BIMC's commitment to undertake the activities as described, the total security CIRNAC currently recommends to ensure adequate funding and appropriate closure and restoration of the site is \$133,779,161.

BIMC has proposed a Progressive Reclamation Program for implementation at the WRF during the next 6 to 8 months. CIRNAC does not oppose the idea of progressive reclamation and requested information on how BIMC could provide the required verification necessary for this to be considered.

CIRNAC has reviewed the proposed Plan, however there remain outstanding concerns related to the QA/QC monitoring and sampling confirmation. BIMC has committed to providing those details by March 21, 2024, at which time the plan as submitted could be reviewed by the Nunavut Water Board.

Cost Breakdown

Considering the financial liabilities for both land and fresh water for undertakings and related activities covered under the existing water licence 2AM-MRY1325, and taking into account the proposed activities described by BIMC, CIRNAC's 'global' estimate has been revised to approximately \$134,000,000.

Information Requests

To assist in refining the security estimates for future iterations of the Annual Security Review, CIRNAC recommends that BIMC clarify the discrepancies/ issues, as outlined



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in the AtkinsRealis Report in Annex A: The outstanding clarifications requested in Table 5-5: Summary of Findings.

If there are any questions or concerns, please contact Andrew Keim, Manager of Water Resources, at (867) 975-4550 or andrew.keim@rcaanc-cirnac.gc.ca.

Sincerely,

Charlotte Lamontagne
Acting Regional Director General
Crown-Indigenous Relations and Northern Affairs Canada

ANNEX A: 2024 Reclamation Cost Estimate for the Mary River Project Water License
2AM-MRY1325 – Amendment #1 Prepared by AtkinsRéalis.



2023-2024 ANNUAL SECURITY REVIEW

List of Revisions

Revision				Revised pages	Remarks
#	Prep.	Rev..	Date		
Rev 4	Jonathan Croston Matt Andersen Mark Fontaine Cheyenne Wynia Hong Kim	Jonathan Croston Chris Brown	2024-03-15		FINAL

Signature Page

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Notice

This report has been prepared and the work referred to in this report has been undertaken AtkinsRéalys Canada Inc., (AtkinsRéalys) for the exclusive use of Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) (the Client), who has been party to the development of the scope of work and understands its limitations. The methodology, findings, conclusions, and recommendations in this report are based solely upon the scope of work and subject to the time and budgetary considerations described in the proposal and/or contract pursuant to which this report was issued. Any use, reliance on, or decision made by a third party based on this report is the sole responsibility of such third party. AtkinsRéalys accepts no liability or responsibility for any damages that may be suffered or incurred by any third party as a result of the use of, reliance on, or any decision made based on this report.

AtkinsRéalys has, in preparing estimates, as the case may be, followed accepted methodology and procedures, and exercised due care consistent with the intended level of accuracy, using its professional judgment and reasonable care, and is thus of the opinion that there is a high probability that actual values will be consistent with the estimate(s). Unless expressly stated otherwise, assumptions, data and information supplied by, or gathered from other sources (including the Client, other consultants, testing laboratories and equipment suppliers, etc.) upon which AtkinsRéalys opinion as set out herein are based have not been verified by AtkinsRéalys; AtkinsRéalys makes no representation as to its accuracy and disclaims all liability with respect thereto.

The findings, conclusions, and recommendations in this report (i) have been developed in a manner consistent with the level of skill normally exercised by professionals currently practicing under similar conditions in the area, and (ii) reflect AtkinsRéalys' best judgment based on information available at the time of preparation of this report. No other warranties, either expressed or implied, are made as to the professional services provided under the terms of our original contract and included in this report. The findings and conclusions contained in this report are valid only as of the date of this report and may be based, in part, upon information provided by others. If any of the information is inaccurate, new information is discovered, site conditions change, or applicable standards are amended, modifications to this report may be necessary. The results of this assessment should in no way be construed as a warranty that the subject site is in compliance with regulatory requirements.

This report must be read as a whole, as sections taken out of context may be misleading. If discrepancies occur between the preliminary (draft) and final versions of this report, it is the final version that takes precedence. Nothing in this report is intended to constitute or provide a legal opinion.

The contents of this report are confidential and proprietary. Other than by the Client, copying or distribution of this report or use of or reliance on the information contained herein, in whole or in part, is not permitted without the express written permission of the Client and AtkinsRéalys.



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Executive Summary

AtkinsRéalis Canada Inc.¹ (AtkinsRéalis) was retained by Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) to participate in the 2024 Annual Security Review (ASR) process for the Type A Water License No. 2AM-MRY1325 for the Mary River Mine (the "Site").

The intent of the ASR process is to capture incremental changes in development as an annual adjustment to the reclamation security until closure is realized. This report provides a summary of updated financial security cost estimates using RECLAIM Model version 7.0 that incorporates information from the Baffinland Iron Mines Corporation (BIMC) 2024 Work Plan, dated December 1, 2023. This report provides a summary of review and recommendations as to whether the security estimate provided by BIMC is adequate based on industry standards, review of the commitments made by BIMC in their Interim Mine Closure and Reclamation Plan (ICRP) dated October 30, 2018, and the applicable regulatory environment as it relates to mine closure and reclamation.

The Mary River Project ("the Project") is in Nunavut, on the northern end of Baffin Island and approximately 160 km south of Pond Inlet. This project is an iron ore mine owned and managed by BIMC. It has been in production since fall 2014, hauling ore from the mine site along the Tote Road to Milne Port for ocean transport. The ore body is concentrated and beyond crushing, mill processing is not required. BIMC is operating under a Nunavut Impact Review Board project certificate and Nunavut Water Board (NWB) Type A Water Licence 2AM-MRY1325 amendment #1. Portions of the Waste Rock Facility contain Potentially Acid Generating rock and water treatment is required.

The objective of this scope of work is to provide professional review of the closure and reclamation liabilities associated with the Site based on previous mining activities, the 2024 Work Plan and the Interim Closure and Reclamation Plan. The intent is to:

- Assess whether the existing global security amount as set by the NWB during the 2023 ASR Process is adequate to reflect the updated scope of activities and undertakings proposed by Baffinland in the 2024 Work Plan;
- Determine whether the 2024 cost estimate is sufficient to ensure appropriate closure and restoration of the site and implementation of any required ongoing measures after site restoration; and
- Confirm whether the securities Baffinland proposes to apply to Crown- and Inuit-owned land in 2024 are adequate to meet the highest reclamation liability.

The 2022/23 Reconciled Estimate and the 2024 Marginal Estimate were reviewed and transferred into RECLAIM. The total security posted by BIMC in January 2023 was \$123,787,500. The total security proposed by BIMC for the 2024 workplan was \$107,799,674. It is CIRNAC's position that BIMC's global security amount as proposed is inadequate, with the main areas of disparity being a discrepancy in potentially acid generating (PAG) rock requiring cover, inflation and the application of contingency.

Following a consultative approach, CIRNAC advised BIMC of the need to address their estimate and BIMC has proposed a progressive reclamation approach for closure of the waste rock facility (WRF). Under this approach, 85% of the exposed PAG rock would be covered by the end of operations in 2024. Further to that, BIMC has increased their estimate for the proposed security to approximately \$125 million and has committed to providing further information to the Nunavut Water Board (NWB), CIRNAC and the Qikiqtani Inuit Association (QIA) by March 21, 2024.

If BIMC provides the appropriate and requested documentation for CIRNAC's review and approval, CIRNAC's recommended Global estimate would be reduced from approximately \$170 million to \$134 million.

¹ Formerly known as SNC-Lavalin Inc.



1. Introduction

AtkinsRéalis Canada Inc.² (AtkinsRéalis) has been retained by Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) to participate in the 2024 Annual Security Review (ASR) process for the Type A Water License No. 2AM-MRY1325 for the Mary River Mine (the “Site”).

The intent of the ASR process is to capture incremental changes in development as an annual adjustment to the reclamation security until closure is realized. This report provides a summary of updated financial security cost estimates using RECLAIM Model version 7.0 that incorporates information from the Baffinland Iron Mines Corporation (BIMC) 2024 Work Plan, dated December 1, 2023. This report provides a summary of review and recommendations as to whether the security estimate provided by BIMC is adequate based on industry standards, review of the commitments made by BIMC in their Interim Mine Closure and Reclamation Plan (ICRP) dated October 30, 2018, and the applicable regulatory environment as it relates to mine closure and reclamation.

1.1 Background

The Mary River Project (“the Project”) is located in Nunavut, on the northern end of Baffin Island, 160 km south of Pond Inlet. This project is an iron ore mine owned and managed by BIMC. It has been in production since fall 2014, hauling ore from the mine site along the Tote Road to Milne Port, where the first ore shipments were made in summer 2015. BIMC is operating under a Nunavut Impact Review Board project certificate and Nunavut Water Board (NWB) Type A Water Licence 2AM-MRY1325 amendment #1.

In 2018, BIMC submitted to the Nunavut Planning Commission (NPC) and the Nunavut Impact Review Board (NIRB), the Final Environmental Impact Statement (FEIS) and the Addendum to the FEIS Mary River Project - Phase 2 Development Proposal. CIRNAC’s Mine Site Reclamation Policy for Nunavut (CIRNAC, 2002) requires that financial security be held for the highest reclamation liability for land and water combined for a mine project. This policy details the assumptions required for determining the security amount. In May 2022, the Phase 2 Development Proposal was denied by the Nunavut Impact Review Board.

The financial security estimations for Site development and related activities have been completed by BIMC, the Qikiqtani Inuit Associations (QIA), Arktis Solutions, third party contractor from QIA, and a third-party contractor hired by CIRNAC. Financial security is held by CIRNAC or the QIA depending on the land ownership where infrastructure and activities are located.

In 2015, CIRNAC retained a third-party contractor to complete an independent evaluation of the reclamation liabilities associated with the Site to ensure that the requirements of the 2002 Policy were met. The reclamation estimations, prepared for CIRNAC, were made using the RECLAIM v. 7.0 Model. The estimate has been updated annually since 2016.

Between 2019 and 2022, CIRNAC raised concerns about the lack of security set aside to adequately implement closure and reclamation at the Site. Due to limited work being proposed in 2023, and BIMC’s recognized need to conduct an internal review of its cost estimating process, all parties agreed that an ASR did not need to be completed in 2023.

² Formerly known as SNC-Lavalin Inc.



1.2 Objective and Scope of Work

The objective of this scope of work is to provide professional review of the closure and reclamation liabilities associated with the Site based on previous mining activities, the 2024 Work Plan and the ICRP. The intent is to:

- Assess whether the existing global security amount as set by the NWB during the 2023 ASR Process is adequate to reflect the updated scope of activities and undertakings proposed by Baffinland in the 2024 Work Plan;
- Determine whether the 2024 cost estimate is sufficient to ensure appropriate closure and restoration of the site and implementation of any required ongoing measures after site restoration; and,
- Confirm whether the securities Baffinland proposes to apply to Crown- and Inuit-owned land in 2024 are adequate to meet the highest reclamation liability.

As per CIRNAC's Statement of Work received via email on November 17, 2023, as well as discussions during the project kick-off meeting on December 12, 2023, the scope of work of this desktop study includes the following activities:

- Review any changes in closure and incorporate the incremental financial security for final reclamation required during the 2023 - 2024 fiscal years;
- We will build on estimates previously submitted for the Mary River Project and update the current Mine Reclamation Cost Estimate of the Mary River Project using the RECLAIM model version 7.0;
- Perform a desktop Review of BIMC's 2024 Work Plan including its mine reclamation cost estimate;
- Determine whether the 2024 cost estimate is enough to ensure appropriate closure and restoration of the site and implementation of any required ongoing measures after site restoration including post-abandonment interim care cost for 3 years as per the approved ICRP;
- Include an environmental contingency for potential future liabilities related to remediation costs; and
- Provide support to CIRNAC during the ASR Regulatory Proceedings of the NWB.

The following activities are excluded from the Scope of work:

- Site survey, site audits, field investigation, field verification, sample collection, or laboratory work;
- Review of Environmental Management Plans;
- Review of the 2023 Revised Phase 1 Waste Rock Management Plan (provided by BIMC on January 18, 2023); and,
- Full review of unit rates.

1.3 2024 Mine Operations

The 2024 Work Plan lists the following standard operations to be implemented at the Site:

- Mine operating, ore crushing, land transport, stockpiling and marine shipment;
- Development and infrastructure across the Site;
- Camp operations, water use and waste deposition (landfilling);
- Use of borrow and quarries;
- Milne Port storage of material, fuel and supplies;
- Environmental effects studies and monitoring;
- Exploration activities;
- Tote Road improvements; and
- Construction of maintenance facilities.

BIMC identifies 10 Work Plan items requiring reclamation securities to be posted as part of the 2024 Work Plan, as described in Section 3.2.



2. Methodology

2.1 Data Review

To conduct the Annual Security Review (ASR) process, AtkinsRéalis relied on the following documentation:

- 2022 Work Plan, Addendum and associated Estimate Breakdown Structure (EBS) workbook, dated November 1, 2021 and the version 2 EBS dated December 31, 2021 by BIMC for 2022 Security Estimate.
- 2024 Work Plan and associated appendices and cost estimate, including the marginal adjustment to the 2022 Global Estimate and the 2024 cost estimate, dated December 1, 2023 by BIMC.
- Waste Rock Management Plan – June 2023 through September 2026, Baffinland Iron Mines Mary River Project, WSP Canada Inc., January 2024 (WSP 2024)
- Baffinland letter to CIRNAC titled, 2024 Security Review, Additional Information Requests, dated February 9, 2024 (BIMC 2024a).
- Baffinland letter to CIRNAC titled, Summary of 2024 Waste Rock Management Strategy, dated February 9, 2024 (BIMC 2024b).
- 2023 Marginal Closure and Reclamation Financial Security Estimate, Rev 0, Dec 15, 2022 (BIMC, 2023)
- Interim Closure and Reclamation Plan (ICRP) (BAF-PH1-830-P16-0012), Revised Draft – Rev 5, Baffinland Iron Mine Corporation, dated October 30, 2018.
- Submissions and correspondence for the Annual Security Review in 2020-2021.
- The 2021 Security Estimate and associated RECLAIM Ver7 workbook by CIRNAC for 2021 Security Estimate.
- Construction plans for infrastructure on site.
- Baffinland Internal Geotechnical Inspection Report No. 1, as submitted on August 22, 2022.
- Baffinland Internal Geotechnical Inspection Report No. 1, as submitted on August 27, 2023.
- Baffinland Internal Geotechnical Inspection Report No. 2, as submitted on November 4, 2023.
- Baffinland Iron Mines Corporation, Phase 1 Waste Rock Management Plan, Rev3, dated June 16, 2020.
- Baffinland Iron Mines Corporation, Surface Water and Aquatic Ecosystem Management Plan, Rev 7, dated March 31, 2021.
- Inspection Report from CIRNAC Field Operations, as submitted on June 29, 2022.
- Inspection Report from CIRNAC Field Operations, as submitted on October 4, 2022.
- Inspection Report from CIRNAC Field Operations, as submitted on January 25, 2023.
- Inspection Report from CIRNAC Field Operations, as submitted on July 12-13, 2023.
- Inspection Report from CIRNAC Field Operations, as submitted on September 7, 2023.
- 2018 Marginal Closure and Reclamation Financial Security Estimate, dated November 16, 2017 by BIMC for 2018 Security Estimate.
- Modification Requests for Water Licence 2AM-MRY1325 – Amend. No. 1.
- CIRNAC's Mine Site Reclamation Policy for Nunavut (CIRNAC, 2002).



2.2 Update of the RECLAIM (v.7) Model

AtkinsRéalis' 2024 ASR estimate builds on the previous reviews carried out for the Mary River Project on behalf of CIRNAC.

For the 2024 ASR, we have updated the RECLAIM mine reclamation cost estimate of the Mary River Project. Our security estimation integrates information from a review of BIMC's 2024 Work Plan dated December 1, 2023.

Two RECLAIM models have been prepared, as described below:

- **Global RECLAIM (Reconciled 2022/23 RECLAIM Global Estimate)** – comprising the 2021 Reconciled Global RECLAIM Estimate (prepared in 2022) combined with the 2022 Marginal Estimate (prepared in 2022) and the 2022/23 Reconciled activities summarized by BIMC's marginal adjustment to the 2022 global estimate value (identified by BIMC in Appendix A of their 2024 Work Plan). This model represents the latest closure estimate as of December 1, 2023 and does not include any 2024 items; and,
- **Marginal RECLAIM (2024 RECLAIM Marginal Estimate)** – This is the security estimate based on BIMC 2024 Work Plan and represents the security estimate based on BIMC's anticipated 2024 activities only. It is noted that this estimate represents the first iteration of a new rate and cost estimate methodology developed by BIMC and Nunami Stantec Limited (Stantec). As such, these costs were copied directly to the RECLAIM structure and all new unit rates proposed by BIMC were retained.

The 2024 Global Estimate is the combined cost of these two models (as outlined in Section 4.5). The AtkinsRéalis Reconciled 2022/23 RECLAIM Global Estimate and 2024 Marginal Estimate are presented respectively in Appendix A and Appendix B of this report.

The quantities stated by Baffinland for the 2024 activities have been accepted and utilized by AtkinsRéalis in this review, as a complete field audit was not included in AtkinsRéalis' scope of work.



3. Summary of BIMC's 2024 Work Plan

3.1 BIMC 2024 Basis of Estimate

Stantec prepared the Basis of Estimate, Baffinland Iron Mines Mary River Project 2023 and 2024 Security Update (Basis of Estimate), dated December 1, 2023, on behalf of BIMC, included as Appendix C in the 2024 Work Plan. The estimate provides a summary of the methodology and closure and reclamation security estimated by BIMC for 2024 only. AtkinsRéalis review comments on the unit rates provided in the Basis of Estimate are presented in Section 5.5.

The total global closure and reclamation security estimate outlined in the BIMC 2024 Work Plan takes into consideration planned work in 2024 in addition to previous project closure and reclamation security estimates including the reconciled costs from previous work plans.

3.2 BIMC Security Estimate Development

The approach for developing the incremental costs for work proposed in 2024 for the ASR process was revised by BIMC and Stantec in 2023. This revised process applies a new methodology for calculating security compared to the previous EBS method BIMC used in previous years. It is our understanding that this new approach will be used to update the Global security estimate later this year. It is BIMC's position that the aggregate of the 2024 Work Plan and the previous 2022 Project closure and reclamation security (with an inflation factor applied) represent the total global closure and reclamation costs required.

The estimate assumes a third-party contractor will perform the work in a worst-case scenario to meet reclamation objectives as outlined in ICRP. The estimate is intended to address all disturbed areas, project components and project activities existing at the Site upon conclusion of the 2024 Work Plan.

Historically, the BIMC security cost estimates were all developed by BIMC employing Hatch's Estimate Breakdown Structure (EBS) approach. BIMC updated the unit costs according to the Arbitration Outcome Reconciliation in 2020. Based on the outcome of this Arbitration, BIMC carried forward the updated unit rates to the 2021 and 2022 Work Plans and Estimates.

In 2023, BIMC revised its closure cost estimating tool as described in the Basis of Estimate. The Work Plan and Basis of Estimate describes the planned works, improvements, infrastructure and equipment required to execute the approved phase of the project. The Basis of Estimate describes the methodology of calculating the incremental security costs. However, based on discussions with BIMC, 2023 rates were used to calculate the 2022/23 reconciled costs. Our understanding is this applied an increase of approximately 10-11% to the 2020 arbitration rates to calculate reconciled costs for activities presented in the 2022 Work Plan and/or 2022 EBS (version 2) that were not completed, deferred to a later date, or considered to no longer apply.

The 2024 Estimate was developed by applying the direct cost unit rates to quantities of functional units of each activity or project component proposed/changed under the 2024 Estimate, unless indicated otherwise by BIMC. BIMC identifies 10 Work Plan items requiring reclamation securities to be posted as part of the 2024 Work Plan, which include:

- Leveling and grading of snow stockpile area at the Mine Site;
- Leveling and grading for expansion of the 106 Stockpile Pad;
- Construction on existing laydown, tank and lined hazardous materials containment berm for the Mine Site 15,000 L Jet A Tank;
- Fencing construction at the Mine Site Aerodrome;
- Construction of a lined sediment pond at the QMR2 Quarry;



- Leveling and grading of the laydown area at the Mine Site for temporary storage of equipment and materials;
- Leveling and grading within footprint of future Waste Rock Facility (WRF) expansion to support geotechnical investigation work;
- Replacement of Culverts at Fish-Bearing Streams Along Milne Inlet Tote Road;
- Removal of various mobile equipment inventoried throughout site; and,
- Removal of various sea cans inventoried throughout site.

Class of estimate and target accuracy provided by BIMC for the ASR process was AACE Class 4 / -15% to -30% on the low end, +20% to +50% on the high end.

3.3 BIMC 2023 Reconciliation

For the 2024 Estimate to reflect the total global closure and reclamation security, the previous years' project estimates have been reconciled. Activities previously proposed that required reconciliation fall into the following categories:

- Revisions to the Global Estimate as previously outlined in the 2022 EBS;
- Activities that have had security allocated to them that are no longer planned to be conducted; and,
- Activities that have had security allocated to them but are being deferred to a later date.

For the 2024 Estimate to accurately reflect the total 'global' closure and reclamation security estimated to be required for the Project in 2024, a marginal adjustment (i.e., reconciliation) to the 2022 global estimate was applied, as outlined in Appendix A of BIMC's 2024 Work Plan.

The total reconciliation presented by BIMC is -\$1,968,501 including a subtotal of -\$1,185,844 in direct costs and -\$782,657 of indirect costs. This represents a reduction of the global security due to the removal of activities that were not completed or have been deferred to a later date. The results of the review performed by AtkinsRéalis and a summary of the reconciled costs applied via the RECLAIM model are presented in the following sections of this report.

Following a preliminary review of the reconciled activities, AtkinsRéalis identified discrepancies between the proposed cost reduction per activity. To complete this comparison, AtkinsRéalis used the version 2 of the 2022 EBS, which was the most recent version associated with the last complete ASR. After communication with BIMC to address the discrepancies, they indicated the select line items were over costed and should be amended. However, BIMC also noted that 2023 unit rates, which have not been through a complete ASR, were used in calculating the reconciled costs. This resulted in a 10-11% increase in costs when compared to the 2022 line items. AtkinsRéalis notes that the activities being reconciled had previous security allocated using 2020 arbitration rates, following the 2022 ASR. As such, AtkinsRéalis suggests the reconciled activities should utilize 2020 arbitration rates in order to accurately adjust the global security.

3.4 2023 Work Plan Activities

The 2023 reconciliation includes security for the water treatment plant constructed at the KM 105 sedimentation pond (Item 2023-1), and security for specific reclamation activities that will be required for the KM 105 dam at closure. These costs are outlined in the December 1, 2023 memorandum prepared by BIMC provided in Appendix A of the 2024 Work Plan.

In total BIMC added **\$1,246,433** in security for the water treatment plant at KM 105 and the KM 105 dam closure. AtkinsRéalis notes that these costs utilize new rates that differ from the 2020 arbitration rates. Furthermore, it is our understanding these rates were applied in December 2023 per the BIMC memo in Appendix A of their work plan. Due to the timing (i.e., December 2023) and rate increase compared to 2020 arbitration rates, AtkinsRéalis does not feel these tasks should be included in the reconciled RECLAIM which utilizes 2020 rates plus the application of a market



price factor adjustment to account for inflation. As such, AtkinsRéalis has included the 2023 costs associated with the KM 105 sedimentation pond in the 2024 Marginal RECLAIM model. A market factor adjustment was not applied to these costs to account for inflation. Additional review comments related to the water treatment plant and dam closure at KM 105 are presented in Section 5.

3.5 2024 Work Plan Activities

A detailed description of the 2024 work activities is captured in the BIMC 2024 Work Plan. To prepare the Global RECLAIM estimate the 2024 work plan items were transferred to the RECLAIM format. However, edits to the 2024 unit rates were not completed. As such, the 2024 Marginal RECLAIM model cost matches the amount prepared by BIMC for 2024 activities. Any suggested changes to unit rates are discussed in Section 5.5 but have not been applied to the RECLAIM model at this time. The planned activities for 2024 are summarized below.

3.5.1 Direct Costs

Mine Site:

- **Buildings:** A total of **\$57,593** was allocated for fencing and fuel tank decommissioning and transport to the landfill.
- **Site Works:** A total of **\$1,042,757** was allocated for grading and recontouring at the Mine Site. It was noted that many line items associated with these site works did not have costs for 2024 but BIMC referenced that these activities were covered by legacy security.

Milne Port:

- No specific building management of site works were proposed at the Milne Port for 2024.

Tote Road:

- **Site Works:** A total of **\$71,026** was allocated for culvert management along the Tote Road in 2024. This included applying **-\$50,957** of legacy credit cited by BIMC.

General:

- **Chemicals and Contaminated Soil Management:** A total of **\$9,605** was allocated to decontaminate bulk fuel storage and fuel management including demobilization of fuel.
- **Building and Equipment Management:** A total of **\$224,785** was allocated for mobile equipment removal and sea can removal based on 2024 works.
- **Mobilization and Demobilization:** BIMC allocated a total of **\$349,875** for the construction facilities, construction equipment, surveying materials, and contractors required to complete the direct cost activities. Based on the 2024 Work Plan these items were considered direct costs.

3.5.2 Indirect Costs

The following activities have been included in the 2024 Marginal Closure and Reclamation Financial Security Estimate.

- **Fuel Demobilization:** The 2024 Estimate allocates of **\$1,015** of additional demobilization of fuel stored on Site.
- **Flights, Camp, and Catering for contractors:** The 2024 Estimate allocates an additional **\$213,000** for worker indirect costs including flights, camp, and catering.
- **Project Management:** The 2024 Estimate includes a project management indirect cost allowance of **\$77,582** or 3.75% of total direct costs.
- **Procurement and Contract Management:** The 2024 estimate includes a procurement and contract management indirect cost allowance of **\$25,861** or 1.25% of total direct costs.



- **Engineering Fees:** The 2024 Estimate includes an engineering, design and execution planning indirect cost allowance of **\$103,443** or 5% of the total direct costs.
- **Contingency:** The 2024 Estimate includes an additional contingency of **\$497,950** or 20% of the total of direct and indirect costs.
- **Inflation:** Inflation was not applied to the 2024 cost estimate; it is understood these costs are in current dollars and inflation does not apply to this portion of the global estimate.

3.6 Summary of 2024 Marginal Closure and Reclamation Estimate

The table below presents a summary of the 2024 Work Plan Marginal Increase per Table 9-2 of BIMC's 2024 work plan.

Table A: Capital Cost Estimate Summary for BIMC 2024 Work Plan Marginal Increase

Description	Total Cost
Direct Construction Costs	
Additional Snow Stockpile Area	\$40,708
Expansion of KM106 Stockpile Pad for Water Truck	\$3,443
15,000 L Jet Tank and Berm	\$21,223
Fencing at Mary River Aerodrome	\$45,062
Laydown area at the mine site for temporary storage of equipment and materials	\$207,899
QMR2 Quarry Sedimentation Pond	\$334,248
Leveling and Grading within the footprint of future water rock facility expansion to support geotechnical investigation work	\$767,782
Replacement of culverts at fish bearing streams along Milne Inlet Tote Road	\$71,026
Mobile Equipment	\$35,698
Sea Cans	\$189,087
Subtotal	\$1,716,176
Direct Construction Indirect Field Support Costs	
Interim Care and Maintenance	\$0
Contractor Mobilization and Demobilization	\$0
Construction Facilities	\$25,850
General Construction Equipment	\$28,000
Contractor Supplied Third Party Expertise	\$65,025
Contractor Construction Management and Support	\$231,000
Contractor Distributable Costs	\$2,800
Subtotal	\$352,675



Table A (Cont'd): Capital Cost Estimate Summary for BIMC 2024 Work Plan Marginal Increase

Description	Total Cost
Indirect Costs	
Mobilization/ Demobilization Freight	1,015
Flights, Camp, and Catering	213,000
Post Closure Monitoring and Maintenance	\$0
Engineering and Design	103,443
Project Management	77,582
Procurement and Contract Management	25,861
Subtotal	\$420,901
Contingency	\$497,950
GRAND TOTAL	\$2,987,701

3.6.1 Exclusions

Additional costs have not been included in the 2024 Work Plan Security Estimate on the basis that it is BIMC's position that the 2024 Work Plan activities do not warrant additional cost allocations for the following activities:

- Post Closure Monitoring and Maintenance;
- Interim Care and Maintenance;
- Contractor Mobilization and Demobilization;
- Health and Safety plans, monitoring, and quality assurance;
- Bonding/ Insurance;
- Electrical permit;
- Civil reclamation bonding;
- Contractor supplied fuel for surface infrastructure demolition;
- Scaffolding; and
- Costs for items inferred to be covered by legacy security.

A list of activities BIMC inferred to be covered by legacy security and/or legacy credits are summarized in the table below for reference.

Table B: Summary of Legacy Security Items Cited by BIMC in the 2024 Work Plan

Description of Legacy Security Items	BIMC 2024 Cost Estimate Item #
Additional Snow Stockpile Area - Grade and Recontour Footprint - Part of MS-GD-007 Legacy Security	015
Expansion of Km 106 Stockpile Pad for Water Truck - Grade and Recontour Footprint - Part of Legacy Security	016
Expansion of Km 106 Stockpile Pad for Water Truck - Grade and Recontour Footprint - Part of Legacy Security	017
Expansion of Km 106 Stockpile Pad for Water Truck - Grade and Recontour Footprint - Part of Legacy Security	019
Laydown Area at the Mine Site for Temporary Storage of Equipment and Materials - Grade and Recontour - Part of MS-GD-003 Legacy Security	030
Laydown Area at the Mine Site for Temporary Storage of Equipment and Materials - Grade and Recontour - Part of MS-LAY-003 Legacy Security	031
Leveling and Grading Within Footprint of Future Waste Rock Facility (WRF) Expansion to Support Geotechnical Investigation Work - Grade and Recontour - Part of MS-GD-007 Legacy Security	038
Leveling and Grading Within Footprint of Future Waste Rock Facility (WRF) Expansion to Support Geotechnical Investigation Work - Grade and Recontour - Part of MS-GD-007 Legacy Security	039
QMR2 Quarry Sedimentation Pond - Grade and Recontour Footprint - Part of MS-QY-001 Legacy Security	047
Legacy Security Credit for the Removal of Culverts at Fish-Bearing Streams Along the Milne Inlet Tote Road - 2013 ERP Design	053
Legacy Security Credit for the Removal of Culverts at Fish-Bearing Streams Along the Milne Inlet Tote Road - 2013 ERP Design	055
Assume Ponds and Sludge and Contaminated Soils will Be Removed and Treated as Part of Care and Maintenance - Part of Legacy Security	080
Assume Contractor Mobilization and Demobilization Are Adequately Accounted for Additional Works in Legacy Security - Part of Legacy Security	084

3.7 BIMC 2024 Global Security Estimate

The total posted Global Security Estimate as of January 2023 under the Type A 2AM-MRY1325 License is **\$123,787,500**.

The Total “Global” Estimated Security for 2024 under the Type A 2AM-MRY1325 License is valued by BIMC at **\$107,799,674**. This does not include the additional securities for exploration (Type B 2BE-MRY2131), DFO, and AANDC Land Lease 47H/16-1-2. Related to the Type A 2A-MRY1325 BIMC requests a marginal adjustment to the posted security of **-\$15,987,926**. The distribution of liabilities by land ownership land use is tabulated in the table below.



Table C: Summary of BIMC’s Total “Global” estimated Security for 2024

Authorization	Liability	Total “Global” estimated Security for 2024 (\$)
Type A2AM-MRY1325	IOL	105,560,330
	Crown	2,239,344
	Water	2,754,430
	Land	105,135,245
Sub-total Type A (IOL + Crown)		107,799,674

The Sub-total Type A amount is shown under Column G of Table 9-3 of the 2024 Work Plan.



4. RECLAIM Model Results

This section of the report provides an overview of the update of the RECLAIM model in consideration of the information presented by BIMC in their 2024 Work plan.

4.1 2022/2023 Reconciliation Unit Rates

It is understood that the security estimates presented by BIMC up to and including those reviewed during the 2022 ASR are based on unit rates per the 2020 arbitration outcome with QIA. It is understood that BIMC applied new 2023 rates to reconciliation items within their 2024 work plan (Appendix A of 2024 BIMC work plan). Given the activities being reconciled are associated with 2022 EBS costs (i.e., security was previously booked using 2020 Arbitration rates), AtkinsRéalis will continue to use 2020 arbitration rates when calculating the 2022/2023 reconciliation cost withing the RECLAIM model.

To bring the 2022 global security estimate including reconciliation (i.e., 2022 work plan and earlier) to current day dollars, a market price factor adjustment was applied. The market price factor adjustment was calculated using the % change in CPI for Iqaluit from January 2021 to December 2023; this equates to a change of approximately 8.38% (CPI of 131.2 to 142.2). The market price factor adjustment was applied to both direct and indirect costs.

4.2 2024 Unit Rates in RECLAIM

The 2024 security estimate prepared by BIMC utilizes an updated methodology for calculating unit rates and therefore the 2020 Arbitration Outcome unit rates were not applied to the 2023 or 2024 activities. Unit rates for the 2023 activities which comprise the KM 105 sedimentation pond and associated security items were outlined in a December 1, 2023 memo prepared by BIMC, presented in Appendix A of the 2024 Work Plan. AtkinsRéalis did not alter these new unit rates and transposed them directly to the 2024 Marginal RECLAIM model. A preliminary review of the 2024 rates proposed by BIMC was completed; the results and recommendations from that review are presented in Section 5.5.

4.3 Direct Cost Updates

Notes and updates pertaining to the direct cost line items included in the RECLAIM models are summarized as follows:

- The 2022 EBS and past work plans included a cost of \$588,550 to reclaim the waste rock dump and the WRF. This line item was removed from 2023 Reconciled RECLAIM model due to the updated security estimate for remediation of the WRF. All costs associated with the remediation of the WRF are presented in the 2024 Marginal RECLAIM and discussed further in Section 5 below. The total cost to reclaim the WRF is estimated at **\$28,818,919** based on a 4 m cover over an area of 399,154 m² and an all-in unit rate of 18.05/m³. The area of the WRF required reclamation was provided by BIMC in February 2024. The unit rate of 18.05/m³ is based on industry experience for similar projects in the north and assumed 35 weeks, ten haul trucks, and four excavators.
- 2022/23 Reconciled activities retained the RECLAIM activity groupings prepared as part of the 2022 ASR. The purpose of this was to document the one for one removal of security for the corresponding activity that was previously booked using the 2022 EBS. Furthermore, AtkinsRéalis maintained the same rates that were applied within the 2022 EBS (i.e., 2020 Arbitration rates) for each of the reconciled activities to update the global security costs.
- 2024 work plan items utilized new rates developed by BIMC. These activities, quantities, and rates were copied directly to the 2024 Marginal RECLAIM model with no alterations to direct costs. Due to format differences between BIMC's cost estimate and the RECLAIM model, AtkinsRéalis organized activities by the RECLAIM sections



previously established during past ASRs. As such, further manipulation to the RECLAIM model layout may be required in future reviews to best capture the updated cost methodology presented by BIMC in 2024.

- A number of 2024 activities were applied a cost of \$0 due to BIMC's inference that the cost was covered by legacy security. These items are summarized in section 3.6.1 above for reference. No value was applied to these activities within the RECLAIM, consistent with BIMC's estimate.
- KM 105 Dam and Sedimentation Pond costs summarized in BIMC's 2024 work plan were included in the 2024 Marginal RECLAIM. It is understood these costs were developed using recent 2023 rates, and as such, no inflation was applied. These line items included:
 - Gabion basket removal;
 - Removal of the water treatment plant installed in 2023;
 - Dam liner removal; and
 - The 2023 work plan security for bulk rockfill, excavation, stockpile and placement, and diversion berm/ditch reclamation.

The associated costs for these activities were included in the 2024 Marginal RECLAIM, filed under the Mine Site buildings and equipment.

Per BIMC's work plan, these costs total \$430,922. The 2024 Work Plan included additional costs for two years of water treatment at the KM 105 dam and sedimentation pond; these costs are included in the post closure monitoring and maintenance section of the 2024 Marginal RECLAIM, outlined in Section 4.4.1 below.

4.4 Indirect Cost Summary

In the RECLAIM model, indirect costs include mobilization and demobilization, contingency, engineering, project management, post-closure monitoring and maintenance, health and safety/QA-QC/engagement costs, and bonding/insurance. BIMC calculates fuel as an indirect cost, but in the RECLAIM model it is considered a direct cost. Furthermore, as stated, the RECLAIM model includes costs for bonding and insurance, which BIMC omits this from their estimates. The following sections provide additional details on the application of indirect costs within the RECLAIM model.

4.4.1 Post Closure Monitoring and Maintenance

The RECLAIM model includes water treatment within post closure monitoring and maintenance. AtkinsRéalis included updated costs for water treatment at the waste rock facility. A unit rate of \$3.00/m³ was applied to the average total discharge of 105,509 m³ to treat metals and TSS. We have assumed three years of treatment based on communications with CIRNAC and BIMC. Further information on this update is presented in Section 5.

Further the annual water treatment cost for the KM105 sedimentation pond was presented by BIMC in the 2024 work plan and equaled \$407,755 per year. BIMC assumed two years of treatment for a total cost of \$815,510. However, we have included an additional year of treatment, to match the treatment outlined for the WRF above.

In total, the annual cost for water treatment (i.e., KM105 sedimentation pond plus the WRF) is \$712,282 in the 2024 Marginal RECLAIM. For three years of treatment, the total security estimated for water treatment is **\$2,136,846**.

It is noted that water treatment costs were included in the 2022 EBS, equating to a total of \$78,107. It is assumed this previous cost was based on historical discharge rates and a lower cost per cubic metre for treatment, however, this should be confirmed by BIMC. Nevertheless, it is inferred the updated costs noted above for water treatment at the WRF override the historical estimate. As such, this previous security estimate for \$78,107 was removed from the 2023 Reconciled RECLAIM.



4.4.2 Bonding/Insurance

While bonding and insurance line items do not appear to have been carried by BIMC in their security estimate, AtkinsRéalis will continue to use 2% of direct costs for bonding and insurance fees in both the reconciled and marginal RECLAIM models.

4.4.3 Market Factor Adjustment/Inflation

In the Reconciled RECLAIM model, we used approximately 8.38% inflation rate based on the Iqaluit CPI % change from January 2021 to December 2023 (i.e., CPI of 131.2 to 142.2). The RECLAIM calculates inflation as a percentage of direct costs and indirect costs.

This represents a change from previous ASRs. In the past, the market price factor adjustment was only applied to direct costs within the RECLAIM model. Upon review, it was determined that the adjustment should be applied to both direct and indirect costs.

No market price factor adjustment was applied to the 2024 Marginal RECLAIM Model; it is understood these rates are presented in current day dollars (i.e., 2024).

4.4.4 Contingency

Cost contingency was previously only applied to the direct costs within the RECLAIM model. It was determined that contingency should be applied to both indirect and direct costs to better account for the uncertainties and complexity of mine closure and reclamation. This presents a risk to the secured liabilities for the project. As such, contingency was applied to the total RECLAIM estimate cost which includes direct and indirect costs, and the market factor adjustment, which is consistent with industry standards. A contingency of 20% was applied per the agreement between BIMC and CIRNAC.

4.5 Summary of Costs

The 2022/23 Reconciled Estimate and the 2024 Marginal Estimate are summarized in following tables, showing a comparison to the BIMC costs. Refer to Appendix A and B of this report for the RECLAIM spreadsheets, presenting the detailed breakdown of closure costs by site components. A summary of the 2024 Marginal Estimate, 2022/23 Reconciled Estimate and 2024 Global Estimate are shown in the Table at the end of this section.

Table D: Summary of 2022/23 Reconciled Estimate (RECLAIM)

	COST	Land Liability	Water Liability	IOL Liability	Crown Liability
Capital Costs					
Open Pit	\$5,926,125	\$0	\$5,926,125	\$5,926,125	\$0
Rock Pile	\$0	\$0	\$0	\$0	\$0
Buildings and Equipment					
Mine Site	\$10,715,182	\$10,530,332	\$184,850	\$10,715,182	\$0
Milne Port	\$9,133,143	\$9,059,398	\$73,745	\$9,499,613	(\$366,470)
Tote Road	(\$2,147,888)	(\$3,302,252)	\$1,154,363	(\$3,498,903)	\$1,351,015



Table D (Cont'd): Summary of 2022/23 Reconciled Estimate (RECLAIM)

	COST	Land Liability	Water Liability	IOL Liability	Crown Liability
Buildings and Equipment (Cont'd)					
Project Wide/Other	\$724,684	\$724,684	\$0	\$528,632	\$196,053
BIMC Owned Equipment	\$6,465,874	\$6,448,436	\$17,438	\$6,465,874	\$0
Chemicals and Contaminated Soil Management	\$7,286,632	\$5,266,632	\$2,020,000	\$7,131,341	\$155,291
Surface and Groundwater Management	\$1,247,071	-	\$1,247,071	\$1,218,301	\$28,770
Interim Care and Maintenance	\$3,423,145	-	\$3,423,145	\$3,344,171	\$78,973
<i>SUBTOTAL: Capital Costs</i>	\$42,773,968	\$28,727,231	\$14,046,737	\$41,330,335	\$1,443,633
Indirect Costs					
Mobilization/Demobilization	\$42,437,756	\$28,501,429	\$13,939,327	\$41,572,433	\$865,323
Post-Closure Monitoring and Maintenance	\$4,990,000	\$3,351,311	\$1,638,689	\$4,821,586	\$168,414
Engineering	\$1,668,185	\$1,120,362	\$547,823	\$1,671,107	\$56,302
Project Management	\$4,020,753	\$2,700,360	\$1,320,393	\$4,027,797	\$135,701
Health and Safety Plans/Monitoring & QA/QC	\$0	\$0	\$0	\$0	\$0
Bonding/Insurance	\$855,479	\$574,545	\$280,935	\$826,607	\$28,873
<i>Subtotal: Indirect Costs</i>	\$53,972,173	\$36,248,007	\$17,724,166	\$52,717,560	\$1,254,613
<i>Subtotal: Direct + Indirect Costs</i>	\$96,746,141	\$64,975,237	\$31,770,903	\$94,047,895	\$2,698,246
Market Price Factor Adjustment (January 2021 to December 2023)	\$8,111,338	\$5,447,619	\$2,663,719	\$7,885,113	\$226,225
<i>Subtotal Cost in Current Dollar Values (2024)</i>	\$104,857,479	\$70,422,856	\$34,434,622	\$101,933,008	\$2,924,470
Contingency (20%)	\$20,971,496	\$14,084,571	\$6,886,924	\$20,386,602	\$584,894
TOTAL COSTS	\$125,828,974	\$84,507,428	\$41,321,547	\$122,319,610	\$3,509,365

Notes: A bracketed number represents a negative total cost; example: (\$1,234) equates to -\$1,234.



Table E: Summary of 2024 Marginal Estimate (RECLAIM)

	Cost	Land Liability	Water Liability	IOL Liability	Crown Liability
Direct Capital Costs					
Open Pit	\$0	\$0	\$0	\$0	\$0
Underground Mine	\$0	\$0	\$0	\$0	\$0
Tailings Facility	\$0	\$0	\$0	\$0	\$0
Rock Pile	\$28,818,919	\$28,818,919	\$0	\$28,818,919	\$0
Buildings and Equipment					
Mine Site	\$1,844,482	\$1,319,458	\$525,024	\$1,844,482	\$0
Milne Port	\$0	\$0	\$0	\$0	\$0
Tote Road	\$71,026	\$71,026	\$0	\$66,258	\$4,768
Project Wide	\$224,785	\$224,785	\$0	\$224,785	\$0
Chemicals and Contaminated Soil Management	\$9,605	\$1,979	\$7,626	\$9,605	\$0
Surface And Groundwater Management	\$0	-	\$0	\$0	\$0
Interim Care and Maintenance	\$0	-	\$0	\$0	\$0
Direct Construction Indirect Field Support	\$349,875	\$273,237	\$76,638	\$349,038	\$837
Subtotal: Capital Costs	\$31,318,692	\$30,709,404	\$609,288	\$31,313,087	\$5,605
Indirect Costs					
Mobilization/Demobilization Indirects	\$214,015	\$162,296	\$51,718	\$213,454	\$561
Post-Closure Monitoring and Maintenance (Incl. KM 105 and WRF)	\$2,136,846	\$2,095,275	\$41,571	\$2,136,628	\$218
Engineering (5%)	\$1,565,935	\$1,535,470	\$30,464	\$1,565,654	\$280
Project Management (3.75%)	\$1,174,451	\$1,151,603	\$22,848	\$1,174,241	\$210
Procurement And Contract Management (1.25%)	\$391,484	\$383,868	\$7,616	\$391,414	\$70
Health and Safety Plans/Monitoring & QA/QC	\$0	\$0	\$0	\$0	\$0
Bonding/Insurance (2%)	\$626,374	\$614,188	\$12,186	\$626,262	\$112
Subtotal: Indirect Costs	\$6,109,104	\$5,942,700	\$166,404	\$6,107,652	\$1,452
Subtotal: Direct + Indirect	\$37,427,796	\$36,652,104	\$775,692	\$37,420,739	\$7,057
Market Price Factor Adjustment	\$0	\$0	\$0	\$0	\$0
Contingency (20%)	\$7,485,559	\$7,330,421	\$155,138	\$7,484,148	\$1,411
TOTAL COSTS	\$44,913,355	\$43,982,525	\$930,830	\$44,904,887	\$8,468

Table F: Summary of 2024 Global Estimate (RECLAIM) and Comparison to BIMC 2024 Security Estimate

			2022/23 Reconciled Global Estimate (Based on 2020 Arbitration Rates)			2024 Marginal Estimate (Based on BIMC 2024 proposed rates)			2024 Global Estimate (Reconciled Global 2022/23 + Marginal 2024)		
			Total	IOL Liability	Crown Liability	Total	IOL Liability	Crown Liability	Total	IOL Liability	Crown Liability
CAPITAL COSTS											
OPEN PIT	Mary River Mine Pit		\$5,926,125	\$5,926,125	\$0	\$0	\$0	\$0	\$5,926,125	\$5,926,125	\$0
ROCK PILE	Mine Site Waste Rock Pile		\$0	\$0	\$0	\$28,818,919	\$28,818,919	\$0	\$28,818,919	\$28,818,919	\$0
BUILDINGS AND EQUIPMENT	Mine Site		\$10,715,182	\$10,715,182	\$0	\$1,844,482	\$1,844,482	\$0	\$12,559,664	\$12,559,664	\$0
	Milne Port		\$9,133,143	\$9,499,613	(\$366,470)	\$0	\$0	\$0	\$9,133,143	\$9,499,613	(\$366,470)
	Tote Road		(\$2,147,888)	(\$3,498,903)	\$1,351,015	\$71,026	\$66,258	\$4,768	(\$2,076,862)	(\$3,432,645)	\$1,355,783
	Project Wide		\$724,684	\$528,632	\$196,053	\$224,785	\$224,785	\$0	\$949,469	\$753,416	\$196,053
	BIMC Owned		\$6,465,874	\$6,465,874	\$0	\$0	\$0	\$0	\$6,465,874	\$6,465,874	\$0
CHEMICALS ANC CONTAMINATED SOIL MANAGEMENT			\$7,286,632	\$7,131,341	\$155,291	\$9,605	\$9,605	\$0	\$7,296,238	\$7,140,946	\$155,291
SURFACE AND GROUND WATER MANAGEMENT			\$1,247,071	\$1,218,301	\$28,770	\$0	\$0	\$0	\$1,247,071	\$1,218,301	\$28,770
INTERIM CARE AND MAINTENANCE			\$3,423,145	\$3,344,171	\$78,973	\$0	\$0	\$0	\$3,423,145	\$3,344,171	\$78,973
DIRECT CONSTRUCTION INDIRECT FIELD SUPPORT COSTS (2024)			\$0	\$0	\$0	\$349,875	\$349,038	\$837	\$349,875	\$349,038	\$837
SUBTOTAL			\$42,773,968	\$41,330,335	\$1,443,633	\$31,318,692	\$31,313,087	\$5,605	\$74,092,660	\$72,643,421	\$1,449,238
PERCENT OF SUBTOTAL				96.62%	3.38%		99.98%	0.02%		98.05%	1.95%
INDIRECT COSTS											
MOBILIZATION/DEMOBILIZATION			\$42,437,756	\$41,572,433	\$865,323	\$214,015	\$213,454	\$561	\$42,651,771	\$41,785,887	\$865,884
POST-CLOSURE MONITORING AND MAINTENANCE			\$4,990,000	\$4,821,586	\$168,414	\$2,136,846	\$2,136,628	\$218	\$7,126,846	\$6,958,214	\$168,632
ENGINEERING	2022	3.90%	\$1,668,185	\$1,611,883	\$56,302	\$0	\$0	\$0	\$1,668,185	\$1,611,883	\$56,302
	2024	5.00%	\$0	\$0	\$0	\$1,565,935	\$1,565,654	\$280	\$1,565,935	\$1,565,654	\$280
PROJECT MANAGEMENT AND PROCUREMENT	2022	9.40%	\$4,020,753	\$3,885,051	\$135,701	\$0	\$0	\$0	\$4,020,753	\$3,885,051	\$135,701
	2024	5.00%	\$0	\$0	\$0	\$1,565,935	\$1,565,654	\$280	\$1,565,935	\$1,565,654	\$280
BONDING/INSURANCE		2.00%	\$855,479	\$826,607	\$28,873	\$626,374	\$626,262	\$112	\$1,481,853	\$1,452,868	\$28,985
SUBTOTAL			\$53,972,173	\$52,717,560	\$1,254,613	\$6,109,104	\$6,107,652	\$1,452	\$60,081,277	\$58,825,212	\$1,256,064
TOTAL COSTS											
SUBTOTAL DIRECT + INDIRECT COST			\$96,746,141	\$94,047,895	\$2,698,246	\$37,427,796	\$37,420,739	\$7,057	\$134,173,936	\$131,468,634	\$2,705,303
MARKET ADJUSTMENT (January 2021 to December 2023)		8.38%	\$8,111,338	\$7,885,113	\$226,225	\$0	\$0	\$0	\$8,111,338	\$7,885,113	\$226,225
SUBTOTAL COST IN CURRENT DOLLAR VALUES (2024)			\$104,857,479	\$101,933,008	\$2,924,470	\$37,427,796	\$37,420,739	\$7,057	\$142,285,274	\$139,353,747	\$2,931,527
CONTINGENCY		20%	\$20,971,496	\$20,386,602	\$584,894	\$7,485,559	\$7,484,148	\$1,411	\$28,457,055	\$27,870,749	\$586,305
TOTAL COST (direct and indirect)			\$125,828,974	\$122,319,610	\$3,509,365	\$44,913,355	\$44,904,887	\$8,468	\$170,742,329	\$167,224,497	\$3,517,833
Total "Global" estimated Security for 2024 as per BIMC (direct and indirect)			\$104,811,973	\$102,580,704	\$2,231,269	\$2,987,701	\$2,979,626	\$8,075	\$107,799,674	\$105,560,330	\$2,239,344
Security Posted by BIMC in January 2023									\$123,787,500		

Notes: A bracketed number represents a negative total cost; example: (\$1,234) equates to -\$1,234.

5. Findings and Comments

This section highlights the findings and comments identified during the review of the documents presented by Baffinland listed in Section 2.1 of this report.

5.1 WRF PAG Cover

BIMC acknowledged the requirement for a cover over PAG rock at the WRF and provided a waste rock management strategy (BIMC 2024b). The area requiring cover was identified as 399,154 m² (Figure 1). The strategy included covering the majority of the PAG rock with non-PAG rock during operations with approximately 60,000 m² still being exposed at the end of 2024. The all-in direct cost presented by BIMC for covering the remaining PAG rock was \$2,223,024. The unit rate for load, haul, place and compact provided by BIMC was \$12.38. The Global Estimate from BIMC may get updated to reflect this security.

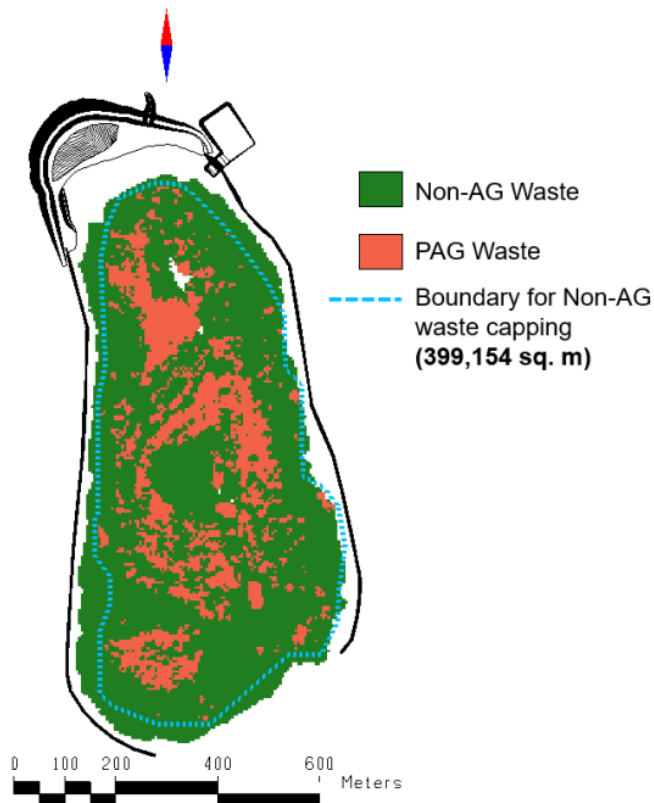


Figure 1: Plan View of the Waste Rock Facility at 2023 End of Year (BIMC 2024b)

BIMC's current estimate is based incremental costs for new work in 2024, reconciled costs and the ICRP with no change from the previous year. A Waste Rock Management Plan (WSP 2024) was provided to CIRNAC in January 2024 and BIMC acknowledged the cover requirement (BIMC 2024b). This plan covers the operation period from June 2023 to September 2026. The plan is consistent with original design criteria in that contact water is collected and treated, ML/ARD generation is controlled with permafrost aggregation, the footprint must be 31 m from any waterbody and the exterior slopes must be 2:1. The updated plan states that a non-PAG (or non-acid generating [NAG]) cover

must be placed over the PAG material within two years and the minimum cover thickness on the exterior face of the facility must be 4 m. As previously mentioned, the area requiring cover as of the end of 2023 was 399,154 m².

CIRNAC reviewed the BIMC waste rock management strategy and the recommendations provided in the Waste Rock Management Plan (WSP 2024) and recommends the placement of a four-metre cover of non-PAG rock over the entire PAG rock surface boundary as provided by BIMC.

Baffinland presented an operational plan to reduce the area requiring cover to 59,873 m² (BIMC 2024a), however the entire area was selected for cover as the BIMC plan relies on operations which have not occurred and a four metre cover (rather than three) was selected to mitigate the likelihood of PAG rock being in contact with the active zone of the WRF. This cover layer would act as the exterior face of the WRF for closure which is recommendation by WSP.

Therefore, CIRNAC is recommending held security for the placement of cover over the entire PAG area of the WRF which totals \$28,818,919. This amount was carried in to the RECLAIM described in Section 4.

Table G: Cover Closure Cost for the WRF

Area of Cover (m ²)	Volume of Non-PAG Cover (m ³)	Total Direct Construction Cost (\$)	All-In Direct Unit (\$ / m ³)
399,154	1,596,616	28,818,919	18.05

- The assumptions built into the basis of estimate for the development of the closure costs estimate for the WRF are:
- Base date for the estimate is Q1 2024.
 - The estimate is reported in Canadian dollars (CAD). All source currencies are in CAD.
 - The estimate is based on metric units.
 - Fuel costs are \$1.92.
 - Workdays are 10 hours with seven-day workweeks.
 - Cover placement duration is 35 weeks.
 - Haul distance to from the source of the non-PAG cover is 1 km.
 - Material bulk density is 2.3 tonnes / m³.
 - Truck speed loaded and empty is 28.5 km/h and 47.0 km/h.
 - Area requiring cover over the PAG waste is 399,154 m² as provided by BIMC (Figure 1).
 - Cover thickness of a minimum of 4.0 m as recommended for the stockpile exterior face to allow for permafrost aggregation and to ensure the PAG rock is not in contact with the active zone. These recommendations were provided as per WSP 2024.
 - The all-in direct unit rate for load, haul, place and compact of non-PAG cover material from the Viper Pit is \$18.05 / m³.
 - The expected accuracy range is Class 5 (-50% to +100%) as defined by the Association for the Advancement of Cost Engineering (AACE) guidelines.

5.2 WRF Water Treatment

Held security for the water treatment plant at the WRF is \$78,600 which covers removal of the water treatment plan and reporting. It is unclear whether third party operational costs were considered for the closure period. The cost for water treatment have not changed in the 2024 work plan and require updating to reflect the increased size of the WRF and changing water chemistry. It is noted that the water quality model as provided in Waste Rock Development Plan (WSP 2024) mentions that nickel is a parameter of concern under conservative loading estimates from PAG material placed in the WRF with respect to the Metal and Diamond Mining Effluent Regulations (MDMER) SOR/2002-222 and that the



model does not cover post closure scenarios and that sulphate, cadmium beryllium cobalt and copper should be assessed for toxicity. An updated post closure water quality model should be provided to CIRNAC.

BIMC provided unit a rate cost for the treatment of TSS is \$1/m³. The operational cost for water treatment with metals removal can cost 3\$/m³, based on recent closure cost estimate for water treatment at a closed mine in the Yukon. A request was made for the recent operational cost for the water treatment at the WRF, but this information was not provided. The waste rock development plan identifies the two to three metres of exterior face of the WRF as being the active zone where shallow groundwater movement is expected. The total discharge from the WRF for the last five documented years are provided in the table below.

Table H: Total Discharges from WRF from 2018 to 2022 (BIMC, 2023)

Year	WRF Total Discharge (m ³)	Additional Water Treatment (m ³) rounded
2022	179,883	1,611
2021	63,000	1,772
2020	63,919	1,796
2019	117,000	1,737
2018	73,600	3,231
Averages	99,480	2,029

Assuming the averages provided in the table above, metals and TSS treatment with a unit rate of \$3/m³ and a minimum of three years of treatment, the cost for water treatment at the WRF is \$913,581. This cost was included in the RECLAIM as a water treatment cost for closure.

The review team considers this is a risk to the closure cost estimate. BIMC should carry these costs until it can be proven that at closure, water treatment is not required. There is uncertainty related to the quantity of water, treatment process and how many years of post-closure water treatment is actual required. This uncertainty is further supported by the fact that BIMC installed a new water treatment plan at the KM 105 Sedimentation Pond and dam to treat water impacted by ore dust from operations. The annual cost for treatment at this location is greater than \$400,000.

It should be noted that CIRNAC recommends the post-closure monitoring should be extended to 25 years, and the timeframe of interim care and maintenance be extended to 5 years. Water treatment may be required during these periods.

5.3 KM105 Dam and Sedimentation Pond

Construction of the KM 105 dam to control sediment loading in the receiving environment was completed in 2022 as part of the first phase of the Long-Term Surface Water Management Plan. The purpose of the pond is to provide temporary containment and treatment of TSS laden water resultant from mining operations, specifically from the ore dust associated with Mine Haul Road and upstream catchment areas. In 2022, a leak was discovered in the dam and a liner was installed at the toe of the dam to collect sediment laden bypass water. This is discussed further in the Section 5.4.1.

Knight Piésold Ltd. (KP) was retained by BIMC to develop the closure concept and provide the estimated materials and quantities that would be involved in closure of the KM105 Sedimentation Pond, in support of the ASR process. The pond was designed to function during operations and several years into active closure, until acceptable water quality is observed. Closure would re-establish the natural drainage of the KM105 Pond area, and to ensure long-term physical

stability by limiting future erosion within the drainage path. The BIMC cost for closure of the KM105 Sedimentation Pond and Dam (\$1,246,433) was included in Marginal 2024 budget in RECLAIM.

However, KP stated that closure of the pond would be consistent with the objectives and requirements provided in ICRP. One of the closure objectives for the Site is to achieve a “Recognized Closed Mine” status. As defined by Part (4) of the MDMER. To meet this objective, BIMC must maintain the mine’s rate of production at less than 10% of its design-rated capacity for a continuous period of three years starting on the day on which the written notice is received by the Minister of the Environment. During this period biological monitoring is required. Because the mine will still be operating, we expect water treatment will still be required as haul roads are still being used and ore dust is still being generated. BIMC’s current closure plan secures two years of water treatment. To meet the closure objective and become a “Recognized Closed Mine” and to be aligned with the ICRP the minimum years of treatment should be three years, or until the water meets the discharge criteria for TSS and metals (if applicable). As reported by BIMC, the yearly operational costs for water treatment of TSS at the KM105 Pond is \$407,755, the security should be increased by at least this amount. This amount was carried into the RECLAIM.

The increase in treatment and monitoring is recommended to ensure the long term physical and chemical stability of the re-established natural drainage feature in that area. It should be noted that CIRNAC recommends the post-closure monitoring should be extended to 25 years, and the timeframe of interim care and maintenance be extended to 5 years. Water treatment may be required during these periods.

It is also not clear to the review team whether the water retained behind the dam contains metal concentrations greater than the Type ‘A’ Water Licence discharge limits. The review team did not see incremental costs for biological monitoring, sampling and reporting.

5.4 Inspection Reports Comments

Water license inspections and biannual geotechnical inspections are a requirement of BIMC’s water license. A geotechnical engineer contracted by BIMC is required to conduct inspections of the earthworks and geological and hydrological regimes. A CIRNAC Water Resources Officer is required to inspect the roads and all mining areas for infractions against the requirements listed in the license. These inspections provide insight into the ongoing environmental and geotechnical performance of mining operations, support the closure planning process and ultimately refine the closure cost estimate.

5.4.1 Geotechnical Inspections

Geotechnical inspections were conducted biannually but the second geotechnical inspection report from 2022 was missing from the available information database. The summary of this report (2nd report from 2022) was included in the first geotechnical inspection report in 2023, but the 2022 No. 2 report itself was not able to be located in the current folder structure. As biannual geotechnical inspections are a requirement of BIMC’s water license, improved document control is needed.

The geotechnical inspection report described in detail the earthworks and geological conditions at surface. Closure and long term physical and chemical stability at the mine are being assessed and modelled through instrumentation installed across the mine.

The closure plan is dependent on permafrost aggregation in the WRF, documenting the presence and operational status of the geotechnical instrumentation should be included in the biannual geotechnical inspections. However, the last version of the closure plan was issued in 2018, although it was revised with updates every 1 or 2 years in the previous versions. It might have been difficult to update the progress in reclamation with a longer update period.



The geotechnical inspection report omits observations of the newly constructed KM 105 dam and sedimentation pond. After construction of the dam, continuous inspections are needed to identify the potential risks such as stability issues. If unexpected conditions around the dam and pond such as leakage are discovered during and after construction, more detailed and frequent inspections are needed to address the stability issues.

During the late spring and early summer months, the KM 105 Sedimentation Pond retains ore-dust-contaminated water behind a constructed dam. If the dam were to fail, this contaminated water would enter the receiving environment. We assume the dam was engineered and constructed to meet the minimum requirements for seismic hazard consideration and other requirements listed by the Canadian Dam Association. Details on the dam safety classification, engineer of record and monitoring protocol and procedures related to closure and decommission of the dam at closure were not provided in the KM 105 Dam Sedimentation Pond - Closure Concept and Reclamation Security letter dated December 1, 2023.

5.4.2 Water License Inspections

CIRNAC Water Resources Officer(s) regularly inspect the Site verifying the terms and conditions upon which the water license was issued upon. BIMC response letters to inspection reports were received on September 23, 2022 and March 09, 2023. A summary of the significant findings is provided below:

- The inspections in 2022 did not find any major issues with respect to water license infractions and all minor issues were promptly addressed;
- During the July 12/13, 2023 inspection CIRNAC noted “At the Waste Rock Facility, a spill (Spill#23-276) had occurred when heavy machinery punctured the berm liner allowing untreated water to escape under the berm. The spill was reported, and employees started the remediation”. There was no mention of how or the timeframe for when the torn liner was repaired;
- During the July 12/13, 2023 inspection CIRNAC, “At KM105 Surface Water Management Pond, there is a dam constructed. At some point, a leak had been discovered in the dam allowing untreated water to escape the site and enter the waterway”. A liner (and assuming a pump) was installed at the toe of the dam to collect the sediment laden water. Geotechnical investigations are ongoing;
- During the September 7, 2023 CIRNAC noted “red/orange sediment laden water coming from a part of land about 200 meters from the road. Upon further inspection, the product seemed to be coming from in the ground through cracks in the bedrock. Baffinland employees will conduct sampling to determine exactly what the product is and whether it is a natural occurrence or from mining activities”. The outcome of the sampling and investigations were not provided; and,
- Minor fuel spills, lack of signage and debris piles were noted during inspections but were not considered significant from a long-term closure perspective. These minor issues which cleaned up and rectified in a short manner.

5.5 2024 Unit Rates Review

Stantec prepared the Basis of Estimate, Baffinland Iron Mines Mary River Project 2023 and 2024 Security Update (Basis of Estimate), dated December 1, 2023 on behalf of BIMC. The Basis of Estimate is included as Appendix C of the 2024 Work Plan. The estimate provides a summary of the methodology and closure and reclamation security estimated by BIMC for 2024 work only. However, it is understood BIMC intends to apply this new methodology for calculating closure and reclamation security to the entire site during their update to the ICRP planned in 2024. The updated cost estimating methodology includes a more detailed calculation of unit rates including labour rates, labour hours, productivity factors, material unit costs, construction equipment unit costs, and a more detailed work breakdown structure. It is understood all areas and other terrain measurements and estimates were calculated using the newest available GIS data for the mine.



AtkinsRéalis completed a high-level review of the Basis of Estimate and noted where there the unit rates appear to be low or high and where uncertainties or lack of information could not allow for review comment. Comments on rates are based on professional judgment from working on similar projects in northern Canada. It is noted that AtkinsRéalis does not endorse the unit rates provided in the Basis of Estimate and recommends a thorough review of the proposed rates as part of the review of the updated ICRP expected in 2024. AtkinsRéalis' review comments of the Basis of Estimate are provided in the following subsections.

5.5.1 Composite Crew Rate

- Overall average composite crew rate (includes labour, construction equipment and Contractor indirect costs) of \$239/hour appears low for heavy civil work.
- Individual craft labour wage rates appear low especially for an 84-hour work week.
- The source of All-in Blended Crew Labour Rates by Discipline (Table 6-1) is unknown.
- The rates listed in Heavy Civil Construction Equipment Rates (Table 6-2) appears high.

5.5.2 Productivity Factor

- Average overall productivity factor of 1.27 appears low for an 84-hour work week and a brownfield site.
- There appears to be 46 direct workers and 18 indirect workers for a total of 64 workers on site. This appears to be a high number of workers on site for a short duration, which would impact cost.

5.5.3 Major Direct Costs

- As outlined in the Basis of Estimate there are 3 major direct costs presented in this year's ASR, being grade and recontour; fill removal from the KM 105 sedimentation pond and sea can landfilling.
- Grade and recontour is 59% of the total direct costs and appears low. To be validated with heavy civil software.
- Quantity and the fuel consumption of each construction equipment is unknown. A list of equipment is as follows:
 - CAT D6R Crawler Tractor;
 - CAT 14H Motor Grader;
 - CAT 246C Skid Steer Loader;
 - Service Truck; and
 - Water Truck.
- Fill sedimentation pond is 18% of the total direct costs which appears low. To be validated with heavy civil software.
- The volume of the contractor supplied fuel (civil equipment included in unit civil rates) is one hundred (100) liters (L) per day for fourteen (14) days that has been estimated for general fuel usage. This consumption is to be validated with the grade and recontour and fill sedimentation pond detailed review with heavy civil software.
- Sea cans is 11% of the total direct costs. The overall average is 6.3 hours per each sea can to remove various sea cans inventories throughout the site. The manhours per sea can appears low.

5.5.4 General Direct Cost

- The supply cost of the backfill captured in unknown since the Basis of Estimate excludes crushing and screening of the backfill materials.
- There is no cost amount for any bulk materials. The Basis of Estimate indicates new larger culverts are to be installed so this appears to be an omission.



- Minimal excavation quantities are included in the estimate. It is unclear if excavation is needed for the 5,669 m² liner removal.
- The Basis of Estimate is assumed to be tied to the much larger overall mine closure being done and the new estimate is not to be treated as a standalone estimate.

5.5.5 Project Indirect Costs

- It is uncertain how the flight costs of \$1,275/worker were generated and whether the workers are paid to travel to and from the Site.
- The estimate base date is 4th quarter 2023. It is unclear as to where this is escalation captured for the work proposed in 2024.

5.6 Closure Monitoring Period

In the August 2019 BIMC document *Technical Comment Responses, Application to Amend Type A Water Licence 2AM-MRY1325*, CIRNAC emphasizes that the timeframe of 3 years for Closure and 15 years for Post-Closure monitoring proposed by Baffinland in the IRCP security calculations may be an optimistic schedule and too short a timeframe, particularly given uncertainties such as ARD/ML and need for pit water treatment. In CIRNAC TRC# 8 - Security Estimate Calculations in Relation to the ICRP, CIRNAC suggests the timeframe of post-closure monitoring should be extended to 25 years, and the timeframe of interim care and maintenance be extended to 5 years (This suggestion was also made in the CIRNAC 2019 ASR final submission).

5.7 Discrepancies between RECLAIM and 2024 BIMC Security Estimate

5.7.1 Inflation

Based on the 2020 Arbitration outcome, it is our understanding that inflation rate for the ASR will be set based on the consumer price index for Iqaluit, NU, with the base year referenced to the date of the last unit rate update (i.e., month and year of the relevant Work Plan). We have interpreted this to mean that the CPI % difference from January 2021 through December 2023 applies to the reconciled global estimate for this year's ASR, which is indicated to be approximately 8.38%. We have used this value to update the RECLAIM model. As discussed in Section 3 and 4 above, this model previously only applied inflation to direct costs. This differs from BIMC's EBS model which applies an inflation percentage on both direct and indirect costs. AtkinsRéalis has revised the RECLAIM to apply the market price factor adjustment to both direct and indirect costs for the 2024 ASR.

In preliminary discussions with BIMC they indicated the 2023 reconciliation costs were equal to the 2022 EBS with inflation applied. Upon review, AtkinsRéalis identified a 10% or 11% difference between 2022 EBS costs and BIMC's 2023 reconciliation costs for the associated activities and quantities. BIMC provided a response to explain the 10% or 11% increase and indicated the cost increase was due to 2023 rates being applied to the 2022 EBS reconciled activities. It is our understanding that the 2023 reconciliation rates should be equal to the 2020 arbitration rates plus inflation. However, this rationale needs to be confirmed by CIRNAC and/or BIMC.

AtkinsRéalis utilized 2020 Arbitration rates plus the market price factor adjustment of 8.38% to account for inflation in the 2022/23 Reconciled global RECLAIM estimate. It is our understanding that since security for 2022 work plan and earlier activities was previously accounted for using the 2020 arbitration rates, then the reconciliation of select activities should apply the same rate; inflation is then applied to the global reconciled estimate (i.e., all activities within the estimate).



5.7.2 Bonding and Insurance

BIMC does not carry costs for Bonding and Insurance as part of their model. RECLAIM includes bonding and insurance costs as part of indirect costs which is calculated as 2% of direct costs. BIMC is requested to provide information on how they are accounting for bonding and insurance costs.

5.7.3 Contingency

BIMC considers 20% Contingency which is applied on direct costs and indirect costs. For 2024 BIMC calculated a contingency of \$497,950 related to their 2024 activities only. For BIMC 2023 reconciliation it is unclear the exact amount of contingency applied. BIMC only included a consolidated cost for indirect costs noted as 66% of direct costs. This accounted for -\$782,657 in their 2024 global security estimate.

The RECLAIM model applies a contingency of 20% on direct and indirect costs for 2024. This differs from previous RECLAIM models in which contingency was only applied to direct costs. Furthermore, AtkinsRéalis included the 2023 work plan items for the KM105 sedimentation pond and associated activities within the 2024 Marginal estimate and applied contingency.

The contingency calculation method applied by BIMC appears to differ slightly from the RECLAIM model and as such a cost discrepancy exists. However, due to the limited information provided in BIMC's 2023 reconciliation it is not possible to confirm the exact cost discrepancy. However, it is inferred that the RECLAIM estimates a higher cost for global security compared to BIMC's estimate.

5.7.4 BIMC 2023 Reconciliation Discrepancies

As discussed in the sections above, BIMC applied 2023 rates to the reconciled activities previously outlined in the 2022 EBS (version 2). For reference this include line items 2022-3 through 2018-28 in Appendix A of BIMC's 2024 work plan. Furthermore, BIMC included the 2023 activities for the KM105 sedimentation pond and associated activities in their reconciled estimate. In total BIMC calculated a reconciliation to the global estimate of **-\$1,968,501**. This included **-\$782,657** of indirect costs (66% of direct costs). No other back-up of the indirect cost calculation was provided for review.

AtkinsRéalis applied the 2020 Arbitration rates per the 2022 EBS (version 2) for the reconciled activities and updated the global reconciled RECLAIM model. Before the application of indirect costs including engineering, project management, bonding/insurance, market price factor adjustment, and contingency; this resulted in a reconciled amount of **-\$1,908,136**. Furthermore, this does not include the 2023 activities for the KM 105 sedimentation pond, as indicated above, those costs were incorporated in the 2024 Marginal RECLAIM.

5.7.5 Total 2024 Global Security Estimate Discrepancy

Based on the updates to the 2022/23 Reconciled RECLAIM and 2024 Marginal RECLAIM, the total global RECLAIM security estimate for 2024 was calculated to be **\$170,742,329**. This presents a large discrepancy when compared to the 2024 global estimate presented by BIMC which estimate a total security of **\$107,799,674**. However, we understand the BIMC total security estimate will increase with recent changes including, inflation applied to the global estimate, and additional costs for the reclamation of the waste rock facility.

Within the 2024 Work Plan (Rev 0) BIMC requests a credit to security based on the posted amount of **\$123,787,500** under Type A 2AM-MRY1325 license in January 2023. However, based on the results of the RECLAIM model update, AtkinsRéalis recommends an additional **\$46,954,829** be added to the global security.



6. Summary of Findings

AtkinsRéalis was retained by CIRNAC to participate in the 2024 Annual Security Review (ASR) process for the Type A Water License No. 2AM-MRY1325 for the Mary River Mine (the “Site”). The intent of the ASR process is to capture incremental changes in development as an annual adjustment to the reclamation security until closure is realized and to review the overall closure costs. The intent of the work was to:

- Assess whether the existing global security amount as set by the NWB during the 2023 ASR Process is adequate to reflect the updated scope of activities and undertakings proposed by Baffinland in the 2024 Work Plan.
- Determine whether the 2024 cost estimate is sufficient to ensure appropriate closure and restoration of the site and implementation of any required ongoing measures after site restoration.
- Confirm whether the securities Baffinland proposes to apply to Crown- and Inuit-owned land in 2024 are adequate to meet the highest reclamation liability.

Upon completion of the ASR process, AtkinsRéalis is of the opinion that the existing global security estimate is insufficient capture the full extent of work proposed in the 2024 Work Plan specifically with regards to water treatment at the KM 105 Sedimentation Pond, existing closure work as outlined in the outdated 2018 ICRP and do not meet the highest reclamation liability with respect to closure of the Mine Site, Milne Port and Waste Rock Facility. AtkinsRéalis recognizes there is a new Revised Phase 1 Waste Rock Management Plan (provided by BIMC on January 18, 2023) and review is pending.



7. Updated Cost Estimate

AtkinsRéalis was retained by CIRNAC to participate in the 2024 Annual Security Review (ASR) process for the Type A Water License No. 2AM-MRY1325 for the Mary River Mine (the “Site”). The intent of the ASR process is to capture incremental changes in development as an annual adjustment to the reclamation security until closure is realized. Our review provides CIRNAC with a summary and recommendations as to whether the security estimate provided by BIMC is adequate based on industry standards, review of the commitments made by BIMC in their Interim Mine Closure and Reclamation Plan (ICRP) dated October 30, 2018, and the applicable regulatory environment as it relates to mine closure and reclamation.

7.1 2024 Review Summary

Upon completion of our review of the BIMC Work Plan, it was noted that there was no posted security to cover the Potentially Acid Generating (PAG) material with non-PAG material required for closure of the Waste Rock Facility (WRF) as defined in the ICRP. BIMC acknowledged the requirement for a cover over PAG rock at the WRF and provided a waste rock management strategy (BIMC 2024b) under a progressive reclamation approach. The area requiring cover was identified by BIMC as 399,154 m². The waste rock management strategy included covering 85% of the existing PAG rock surface with non-PAG rock during operations with approximately 60,000 m² still being exposed at the end of 2024. BIMC updated their marginal security estimate to include a cover over the remaining PAG rock and reportedly their new global estimate is approximately 25 million. AtkinsRéalis was not provided the revised work plans.

CIRNAC was in general agreement with the idea of progressive reclamation for the WRF. However, they required additional information and assurance that the waste rock management strategy was being implemented appropriately before they could potentially reduce security held for the Mary River mine. At CIRNAC's request, BIMC provided a Waste Rock Facility Quality Assurance / Quality Control (QA/QC) Monitoring Plan (QAQC Plan) on March 4, 2024 (BIMC 2024c) and a letter explaining the proposed Waste Rock Sampling Procedure on March 11, 2024.

AtkinsRéalis reviewed the QAQC Plan and the Waste Rock Sampling Procedure and observed that many of the technical comments that were discussed between CIRNAC and BIMC during the ARD process were addressed, however some uncertainties and information gaps remain. These critical information gaps related to the Waste Rock Sampling Procedure are summarized below:

- The Trigger Action Response Plan (TARP) response is lacking a definitive action plan for the high risk pre-defined response which should at a minimum, include a reference to ensuring the next 4 m lift over the area is non-PAG;
- Sampling methodology is insufficient and should include more detail, for example a plan such as this should include details such as the following:
 - Samples to be sieved from fine and coarse (geochemical testing on the <2mm fraction);
 - Samples should be from a discrete area and randomly selected to avoid sampling bias (single or composite grabs on an established grid pattern. Composite samples only from a small area (i.e., 2x2 m). This is to avoid composite sampling for different geologic materials, structure, weathering and leaching conditions which is what is being testing for. (so composite testing isn't appropriate);
 - Collect from shallow dug test pits (ideally in the moist rock just below surface);
 - Log samples for rock type, grain size, weathering, mineralogy, etc.;
 - Photographs of sample test pits; and,
 - Field rinse pH could also so be collected.
- The QAQC screening criteria should be based on best management practices and appropriate for the geologic materials at the mine; and,



- BIMC should provide CIRNAC with an appropriate screening criteria that we will review as part of the ASR process. For example, sample screening could specifically reference Table 1 in the Waste Rock Management Plan (2024b) with a 30% submission of samples for Modified Sobek ABA Neutralization Potential Ratio's compared to the screening criteria listed in the GARD Guide³.

Non-critical data gaps were also identified however they do not impact the current ASR process and should be considered going forward. The QA/QC Plan outlines the monitoring locations, frequency and parameters to be analyzed and screened against in the TARP. While CIRNAC agrees with screening against the MDMER it is our opinion that sample results should also be compared against the Canadian Council of Ministers of the Environment (CCME) guidelines for the protection of Drinking Water and Aquatic Life for closure planning purposes. BIMC intends to treat water for three years at closure and is currently completing an aquatic effects monitoring program to assess if the mine is impacting aquatic biota. As the WRF expands, more seepage will likely require treatment and under the conservative water modelling assumptions in WSP 2024, nickel is predicted be a contaminant of concern at the end of 2026. It was also noted that the water quality model specifically states it is not applicable to closure and that toxicity testing should be considered for some parameters that are not currently being used in the TARP screening, such as sulphate. Toxicity screening and comparison to the CCME guidelines will help with transparency on what contaminants may be present at closure and aid in the closure planning process.

BIMC is currently working on addressing the critical information gaps and committed to provide the Nunavut Water Board with a revised Waste Rock Sampling Procedure along with the finalized Waste Rock Facility Quality Assurance / Quality Control Monitoring Plan, Waste Rock Management Strategy and updated Global Security Estimate. It is CIRNAC's intention to review these final documents to ensure all the critical information gaps were addressed.

7.2 Progressive Reclamation Cost Reduction

At a cursory review level, CIRNAC does not oppose the idea of progressive reclamation but there are some uncertainties and critical information gaps that remain, as discussed in the previous section. If CIRNAC's review of the finalized reports submitted to the NWB finds these critical information gaps are addressed, it is willing to accept the notion of progressive reclamation of the WRF and may lower the suggested held security for closing the WRF.

The current version of the ASR as described in this report includes a full 4 m cover over the entire WRF for a total direct cost of \$28,818,919 and a total Site wide security estimate of \$170,775,096. If BIMC were to meet the QA/QC Plan objective to cover 85% of the PAG rock as part of operations, the total direct cost to place a 4 m thick cover over the remain 15% would be \$3,107,414 and the total Site wide security estimate would be \$133,779,151. Indirect costs would also be reduced as they are based on percentages of direct costs. Also based on conversations with BIMC, inflation adjustments were change from 8.38% to 6.28% to reflect the time from the last previously approved ASR rather than the Arbitration rates AtkinsRéalis applied to the Global estimate. The breakdown of direct, indirect and contingencies costs that affect the overall security estimate for each scenario are provided in the Table I below.

³ Web Accessed March 13, 2024: http://www.gardguide.com/index.php/General_Information_on_Metal_Leaching_and_Acid_Rock_Drainage

Table I: Total Cost and Security Estimate for each Cover Scenario

Cover Options	Full 4 m Cover	15% 4 m Cover
Direct	\$ 74,092,660	\$ 48,381,155
In-direct	\$ 60,108,582	\$ 57,023,202
Inflation	\$ 8,111,338	\$ 6,078,270
Contingency	\$ 28,462,516	\$ 22,296,525
TOTAL	\$ 170,775,096	\$ 133,779,151
Potential Cost Saving	N/A	\$ 36,995,945



8. References

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9. Guidelines

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APPENDIX A

AtkinsRéalis 2022/2023 Reconciled
Global RECLAIM MODEL

SUMMARY OF COSTS							
CAPITAL COSTS	COMPONENT NAME	COST	LAND LIABILITY	WATER LIABILITY	IOL	LIABILITY	CROWN LIABILITY
OPEN PIT	Mary River Mine Pit	\$5,926,125	\$0	\$5,926,125		\$5,926,125	\$0
ROCK PILE	Mine Site Waste Rock Pile	\$0	\$0	\$0		\$0	\$0
BUILDINGS AND EQUIPMENT	Mine Site	\$10,715,182	\$10,530,332	\$184,850		\$10,715,182	\$0
	Milne Port	\$9,133,143	\$9,059,398	\$73,745		\$9,499,613	-\$366,470
	Tote Road	-\$2,147,888	-\$3,302,252	\$1,154,363		-\$3,498,903	\$1,351,015
	Project Wide/Other	\$724,684	\$724,684	\$0		\$528,632	\$196,053
	BIMC Owned Equipment	\$6,465,874	\$6,448,436	\$17,438		\$6,465,874	\$0
CHEMICALS AND CONTAMINATED SOIL MANAGEMENT		\$7,286,632	\$5,266,632	\$2,020,000		\$7,131,341	\$155,291
SURFACE AND GROUNDWATER MANAGEMENT		\$1,247,071	-	\$1,247,071		\$1,218,301	\$28,770
INTERIM CARE AND MAINTENANCE		\$3,423,145	-	\$3,423,145		\$3,344,171	\$78,973
	SUBTOTAL: Capital Costs	\$42,773,968	\$28,727,231	\$14,046,737		\$41,330,335	\$1,443,633
	PERCENT OF SUBTOTAL		67.2%	32.8%		96.62%	3.4%
INDIRECT COSTS		COST	LAND LIABILITY	WATER LIABILITY	IOL	LIABILITY	CROWN LIABILITY
MOBILIZATION/DEMOBILIZATION ¹		\$42,437,756	\$28,501,429	\$13,936,327		\$41,572,433	\$865,323
POST-CLOSURE MONITORING AND MAINTENANCE		\$4,990,000	\$3,351,311	\$1,638,689		\$4,821,586	\$168,414
ENGINEERING	3.9%	\$1,668,185	\$1,120,362	\$547,823		\$1,671,107	\$56,302
PROJECT MANAGEMENT	9.4%	\$4,020,753	\$2,700,360	\$1,320,393		\$4,027,797	\$135,701
HEALTH AND SAFETY PLANS/MONITORING & QA/QC	0.0%	\$0	\$0	\$0		\$0	\$0
BONDING/INSURANCE	2.0%	\$855,479	\$574,545	\$280,935		\$826,607	\$28,873
	SUBTOTAL: Indirect Costs	\$53,972,173	\$36,248,007	\$17,724,166		\$52,717,560	\$1,254,613
INDIRECT COSTS		COST	LAND LIABILITY	WATER LIABILITY	IOL	LIABILITY	CROWN LIABILITY
SUBTOTAL DIRECT + INDIRECT COST		\$96,746,141	\$64,975,237	\$31,770,903		\$94,047,895	\$2,698,246
MARKET PRICE FACTOR ADJUSTMENT (January 2021 to December 2023)	8.38%	\$8,111,338	\$5,447,619	\$2,663,719		\$7,885,113	\$226,225
SUBTOTAL COST IN CURRENT DOLLAR VALUES (2024)		\$104,857,479	\$70,422,856	\$34,434,622		\$101,933,008	\$2,924,470
CONTINGENCY	20.0%	\$20,971,496	\$14,084,571	\$6,886,924		\$20,386,602	\$584,894
TOTAL COSTS		\$125,828,974	\$84,507,428	\$41,321,547		\$122,319,610	\$3,509,365

Notes:

¹ - Mobilization/Demobilization includes Phase 2 Equipment Modules. It is understood that Phase 2 Equipment is allocated 100% to IOL Liability, and as such, the Reclaim model only calculates Crown liability for the remaining Mobilization/Demobilization line items. Phase 2 line items are completely captured under IOL Liability.

1

Rock Pile Name:

Mine Site Waste Rock Pile

ACTIVITY/MATERIAL	Notes	Units	Quantity	Cost Code	Unit Cost	% Cost Land	Land Cost	Water Cost	
STABILIZE SLOPES									
COVER ROCK PILE									
VERY LOW PERMEABILITY COVER (in addition to above)									
CONSTRUCT DIVERSION DITCHES									
CONSTRUCT SEEPAGE COLLECTION POND									
INSTALL GROUNDWATER COLLECTION SYSTEM									
RELOCATE DUMPS									
SPECIALIZED ITEMS									
Grade and Contour Waste Rock dump	Historical Security	m2	395000	20GCS	\$1.49	\$588,550	100%	\$588,550	\$0
	2024 Update: Costs Captured in 2024								
Grade and Contour Waste Rock dump	Maginal RECLAIM. Updated costs override the historical estimate above.	m3	-395000	20GCS	\$1.49	-\$588,550	100%	-\$588,550	\$0
TREAT ROCK PILE SEEPAGE - see "Water Management"									
HEAP LEACH SEEPAGE TREATMENT - Cyanide Detox									
				Annual treatment costs		\$0			
Number of years of treatment		years							
				Total treatment costs		\$0			\$0
HEAP LEACH SEEPAGE TREATMENT - ARD/ML**									
Upgrade/modify pumping system - report to WTP		allow		#N/A	\$0.00	\$0			\$0
				Total		\$0		\$0	\$0
				% of Total				0%	0%

* For construction of passive treatment system refer to "Water Management". ARD/ML seepage treatment becomes post-closure water treatment cost

**Heap leach ARD/ML seepage treatment becomes post-closure water treatment cost

Open Pit Name:		Mary River Mine Pit			Pit # 1				
ACTIVITY/MATERIAL	Notes	Units	Quantity	Cost Code	Unit Cost	% Cost Land	Land Cost	Water Cost	
CONTROL ACCESS									
STABILITY STUDY									
STABILIZE SLOPES									
COVER/CONTOUR SLOPES									
CONSTRUCT DIVERSION DITCHES									
CONSTRUCT SPILLWAY									
RECLAIM QUARRIES (the unit cost is inclusive of backfill, compaction and scarification with a dozer)									
Various Quarries (Mine)	2020 EBS	m2	480,365	20GCS	\$1.49	\$715,744	\$0	\$715,744	
Various Quarries (Tote Road)	2020 EBS	m2	3,496,900	20GCS	\$1.49	\$5,210,381	\$0	\$5,210,381	
GRADING AND CONTOURING SIGNIFICANTLY DISTURBED AREAS (the unit cost is inclusive of backfill, compaction and scarification with a dozer)									
					\$72.00	\$0			
Number of years of pump flooding		years							
				Total pumping costs		\$0	\$0	\$0	
Total						\$5,926,125	\$0	\$5,926,125	
% of Total							0%	100%	

Chemicals/Soil Area Name:

Note: The procedures, equipment and packaging for clean up and removal of chemicals or contaminated soils are highly dependent on the nature of the chemicals and their existing state of containment. Government guidelines should be consulted on an individual chemical basis. Any estimate made here should be considered very rough unless specific evaluations have been conducted.

ACTIVITY/MATERIAL	Notes	Units	Quantity	Cost Code	Unit Cost	% Cost Land	Land Cost	Water Cost	
HAZARDOUS MATERIALS AUDIT									
BUILDING DECONTAMINATION & CONSOLIDATION OF HAZARDOUS MATERIALS									
HAZARDOUS MATERIALS REMOVAL									
HAZARDOUS MATERIALS CONTAMINATED SOILS									
CONTAMINATED SOIL REMOVAL									
Contaminated Soil Treatment	No 2018 unit rate availabe	m3	16164	15CSTS	\$14.78	\$238,904	100%	\$238,904	\$0
Contaminated Soil Treatment (2017 Work Plan)	Marginal increase associated with 2017 Work Plan. Spill 16-283 at Milne Port Bulk Fuel Tank Farm. No 2018 unit rate availabe	m3	8464	15CSTS	\$14.78	\$125,098	100%	\$125,098	\$0
	2022-R: - Metal Contaminated Soil - Milne Port Ore Stockpile	m3	43,197						
Contaminated Soil Treatment	- Metal Contaminated Soil - Crusher Pad			EBS	\$4.02	\$173,652	100%	\$173,652	\$0
	2022-R: - Metal Contaminated Soil - ROM	m3	8,504	EBS	\$9.89	\$84,105	100%	\$84,105	\$0
CONTAMINATED SOIL VERY LOW PERMEABILITY COVER									
OTHER									
Ammonium nitrate (explosive material)	2019 estimate (See section 3.3.2.2 of 2019 Work Plan)	m3	12143	16AN1S	\$358.00	\$4,347,194	100%	\$4,347,194	\$0
Hazardous Substances	2020 Arbitration Outcome	m3	5500		\$358.00	\$1,969,000		\$0	\$1,969,000
	2020 Revised Workplan	LS	1	EBS	\$21,000.00	\$21,000		\$0	\$21,000
Fuel	2020 Abritration outcome	LS	1	EBS	\$30,000	\$30,000		\$0	\$30,000
	2021 Marginal (2021 Work Plan)	LS	1	EBS	\$49,000.00	\$49,000	100%	\$49,000	\$0
	2021 Addendum (2022 EBS)	LS	1	EBS	\$26,000.00	\$26,000	100%	\$26,000	\$0
Fuel Demobilization	2022 Revised Workplan	litre	556,699	EBS	\$0.40	\$222,680	100%	\$222,680	\$0
Total						\$7,286,632		\$5,266,632	\$2,020,000
% of Total								72%	28%

Building / Equip Name:		Mine Site		Bldg / Equip # 1						
ACTIVITY/MATERIAL		Notes	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
DISPOSE MOBILE EQUIPMENT - Unit Costs includes disassembly and decontamination required for on-site disposal, load and transport to landfill										
DISPOSE MECHANICAL EQUIPMENT - Unit Costs includes disassembly and decontamination required for on-site disposal, load and transport to landfill										
Light Tanks	Light non- fuel storage tanks. The cleaning, plugging, disassembly and removal of all associated pipeline infrastructure is included (Ref 1, pg 26).	each	6	20TLS	\$1,710.42	\$10,263	0%	\$0	\$10,263	
	Light non- fuel storage tanks. The cleaning, plugging, disassembly and removal of all associated pipeline infrastructure is included (see Tables 2-4 & 3-4 of 2018 Marginal Estimate). (see Tables 3-4 of 2019 Marginal Estimate).	each	13	20TLS	\$1,710.42	\$22,235	100%	\$22,235	\$0	
	2020 Revised Work (net zero)	each	0	20TLS	\$1,710.42	\$0	100%	\$0	\$0	
	2020-R: - Water Tank 15,000L (1) - Water Tank 1,000L (3)	each	-4	20TLS	\$1,710.42	(\$6,842)	100%	(\$6,842)	\$0	
Medium Tanks	Medium non- fuel storage tanks. The cleaning, plugging, disassembly and removal of all associated pipeline infrastructure is included (Ref 1, pg 26).	each	12	20MTS	\$5,900.00	\$70,800	100%	\$70,800	\$0	
	Medium non- fuel storage tanks. The cleaning, plugging, disassembly and removal of all associated pipeline infrastructure is included (see Tables 2-4 & 3-4 of 2018 Marginal Estimate).	each	2	20MTS	\$5,900.00	\$11,800	100%	\$11,800	\$0	
Light Diesel Tanks	Small fuel tanks (10,000-20,000L) (Ref 1, pg 27)	each	5	20LiDTS	\$2,950.00	\$14,750	100%	\$14,750	\$0	
	Small fuel tanks (10,000-20,000L) 2017 actual not previously allocated (see Tables 2-4 & 3-4 of 2018 Marginal Estimate) (see Table 3-4 of 2019 Marginal Estimate)	each	15	20LiDTS	\$2,950.00	\$44,250	100%	\$44,250	\$0	
Medium Diesel Tanks	Medium fuel tanks (500,000-750,000L). The cleaning, plugging, disassembly and removal of all associated pipeline infrastructure is included (Ref 1, pg 27).	each	11	20MDTS	\$12,982.50	\$142,808	100%	\$142,808	\$0	
	Medium fuel storage tanks. The cleaning, plugging, disassembly and removal of all associated pipeline infrastructure is included (Tables 2-4 & 3-4 of 2018 Marginal Estimate). (Table 3-4 of 2019 Marginal Estimate).	each	12	20MDTS	\$12,982.50	\$155,790	100%	\$155,790	\$0	
Large Diesel Tanks	Large fuel tanks (3ML-15ML). The cleaning, plugging, disassembly and removal of all associated pipeline infrastructure is included (Ref 1, pg 27).	each	2	20LDTS	\$85,157.50	\$170,315	100%	\$170,315	\$0	
Misc. Items	On-site disposal. Miscellaneous (minor) items were defined as any item less than 200 kg not captured in other unit costs (Ref 1, pg 42).	Lot	0	20MEIS	\$0.00	\$0	100%	\$0	\$0	
Fuelk tanks - On-site disposal of medium mobile fuel tanks (3,000 to 500,000 L)	On-site disposal of medium-mobile fuel tanks (3,000 to 500,000L). See table 3-4 of 2018 marginal Estimate	each	18	20MMFTS	\$8,381.25	\$150,863	100%	\$150,863	\$0	
Light Mechanical Equipment	2022 Workplan: - Communication Tower KM 108 (2022-13)	m2	1	20LMES	\$1,583.75	\$1,584	100%	\$1,584	\$0	
Medium Mobile Diesel Tanks	2022 Workplan: - 250,000 L Fuel Tank (2022-5, E-17) - 15, 000 L Fuel Tank (2022-10, E-33)	m2	2	20MMFTS	\$8,381.25	\$16,763	100%	\$16,763	\$0	
New Fuel Tank (2023-R)	New Fuel tank (250,000L) to be mobilized on existing pad KM110.5.	each	-1	20MMFTS	\$8,381.25	(\$8,381)	100%	(\$8,381)	\$0	

Building / Equip Name:		Mine Site		Bldg / Equip #1						
ACTIVITY/MATERIAL		Notes	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
REMOVE BUILDINGS - Unit Costs include disassembling, removing or securing all items and load and transport										
Modular		Trailers and Pre-fabricated buildings 2017 Work Plan Addendum includes 800 person temp hardwall camp , construction offices, lunch rooms and washcars at both Mine Site and Milne Port 2018 Work Plan see table 3-1 2019 estimate (See table 3-1 of 2019 Marginal Estimate)	m2	24,493	20RBMS	\$47.64	\$1,166,847	89%	\$1,038,493	\$128,353
		2020 Revised Work: - add Sallivik (800p) Camp Mine Dry - Crusher Dry Trailer - Environmental Trailer 2021 Work Plan (2021 Marginal): - Quonset hut structure at the Aerodrome - New offices/trailers at the OHT Laydown	m2	1,344	20RBMS	\$47.64	\$64,028	98%	\$62,748	\$1,281
		Construction of one (1) quonset hut structure at the aerodrome, and one (1) quonset hut structure adjacent to the Milne Port Fire Hall for emergency equipment storage. (assumed each 100 m2)	m2	500	20RBMS	\$47.64	\$23,820	98%	\$23,344	\$476
	Quonset Hut Structure (2023-R)		m2	-100	20RBMS	\$47.64	(\$4,764)	98%	(\$4,669)	-\$95
	Mine Dry Facility (2023-R)		m2	-1,200	20RBMS	\$47.64	(\$57,168)	98%	(\$56,025)	-\$1,143
Modular		Installation of a mine dry facility at the Sallivik Camp. 2022-R: - Addition of offices/trailers/buildings at 800p camp (2019-17) Addition of offices/trailers/buildings at the 800p Camp. Total footprint is 925 m2, including approximately 500 m2 for a new fire hall and emergency response building.	m2	925	20RBMS	\$47.64	\$44,067	100%	\$44,067	\$0
Modular (2023-R)			m2	-925	20RBMS	\$47.64	(\$44,067)	100%	(\$44,067)	\$0
Fold Away Buildings			m2	709	20RBFS	\$33.34	\$23,638	100%	\$23,638	\$0
Soft-Walled		2017 Work Plan Addendum soft Walled Buildings includes 50 person camp and 35 person Norse man style camp at Mine Site only	m2	7,917	20RBSS	\$38.11	\$301,717	100%	\$301,717	\$0
ISO Shipping Containers (Shelters, Comm. Facilities)			m2	30	20RBIS	\$23.82	\$715	100%	\$715	\$0
ISO Shipping Containers		2022 Workplan: - Replacement of inflatable building with rigid building (2022-8) - Bit Shack (Container Building) (2022-9) - Addition of offices/trailers at the Environment Dep. (2022-18) - Enhancement of ERT training grounds (2022-17) - COVID-PCR testing lab building (2022-14) Construction of a new COVID-19 PCR testing lab building at the Mine Site.	m2	407	20RCBIS	\$23.82	\$9,695	100%	\$9,695	\$0
ISO Shipping Container (2023-R)		Addition of offices/ trailers at the Environment Department work areas.	m2	-53.5	20RCBIS	\$23.82	(\$1,275)	100%	(\$1,275)	\$0
		Enhancement of training grounds for the Emergency Response Team with fire retardant infrastructure and secondary spill containment.	m2	-55.7	20RCBIS	\$23.82	(\$1,328)	100%	(\$1,328)	\$0
		2017 Actual work not previously allocated. See Table 2-4 of 2018 Marginal Estimate. No 2018 unit rate available	m2	-59.5	20RCBIS	\$23.82	(\$1,416)	100%	(\$1,416)	\$0
Office/washcars		Equipment quantities updated to reflect 2017 Work Plan addendum Table 3-6 2 units one at Milne Port and one at Mine Site.	m2	576	20RBMS	\$47.64	\$27,441	89%	\$24,422	\$3,018
Water and Wastewater Treatment Facilities			each	2	20WWTS	\$8,775.00	\$17,550	0%	\$0	\$17,550
REMOVE CONTAMINATED BUILDINGS - Unit Costs include disassembling, removing or securing all items, decontamination and load and transport										
Modular		Trailers and pre-fabricated buildings. (Ref 1, pg 29).	m2	3,112	20RCBMS	\$114.89	\$357,538	100%	\$357,538	\$0
		2021 Workplan: - Washcar - Seacan tent structure at the aerodrome for freight and equipment sorting	m2	1,163	20RCBMS	\$114.89	\$133,617	100%	\$133,617	\$0
Modular Building Contaminated		2022 Workplan: - Washcar (bathroom) (E-10)	m2	36	20RCBMS	\$114.89	\$4,136	100%	\$4,136	\$0
Fold Away Buildings		2017 Work Plan add 1500 m2 Truck wash Building 2018 Work Plan see table 3-1 add 4230 m2 2019 estimate (See table 3-1 of 2019 Marginal Estimate)	m2	16,029	20RCBFS	\$114.04	\$1,827,947	100%	\$1,827,947	\$0
		2021 Workplan: - Heated Maintenance shops (2) for pit equipment at KM110.5 laydown	m2	180	20RCBFS	\$114.04	\$20,527	100%	\$20,527	\$0
Fold Away Building Contaminated		2022 Workplan: - New building and expansion of Mary River HD Maintenance Shop (2022-15)	m2	878	20RCBFS	\$114.04	\$100,127	100%	\$100,127	\$0
Soft-Walled		2017 Work Plan Addendum Maintenance Garage at Mine Site	m2	2,046	20RCBSS	\$128.86	\$263,648	100%	\$263,648	\$0
ISO Shipping Containers (Shelters, Comm. Facilities)		2017 Work Plan add 500 m2 Tire Shop	m2	604	20RCBIS	\$23.82	\$14,387	100%	\$14,387	\$0

Building / Equip Name:		Mine Site		Bldg / Equip #1						
ACTIVITY/MATERIAL		Notes	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
BREAK FOUNDATIONS										
Precast Foundations		Includes load and transport of precast concrete foundations (Ref 1, pg 34). Add 2017 Work Plan Truck Wash Building foundation of 1500 m2. Add 2017 Work Plan addendum 800 person temp hard walled camp at mine 4333 m2.	m2	13,357	20FCS	\$30.86	\$412,197	100%	\$412,197	\$0
		Includes perforating the concrete slabs on grade Includes perforating the concrete slabs on grade 2017 Work Plan Addendum for pre-cast concrete foundation and Maintenance Garages at Mine Site	m2	17,750	20FSS	\$30.00	\$532,500	100%	\$532,500	\$0
Slab on Grade		2020 Revised Workplan: - Concrete Pad for tire maintenance at 110 Laydown 2021 Workplan: - Concrete pad apron for exterior of HD Shop	m2	60	20FSS	\$30.00	\$1,800	100%	\$1,800	\$0
		- Concrete Pad for tire maintenance and welding shop at 110 Laydown	m2	1,620	20FSS	\$30.00	\$48,600	100%	\$48,600	\$0
Timber Cribbing		Includes disassembly load and transport of the timber cribbing	m2	1,102	20TCS	\$16.67	\$18,370	100%	\$18,370	\$0
GRADE AND CONTOUR, GENERAL - Unit costs are inclusive of backfill, compaction and sacrification with a dozer										
		2020 EBS	m2	2,013,379	20GCS	\$1.49	\$2,999,935	100%	\$2,999,935	\$0
Grade and contour (on IOL): - laydown areas - building footprints - infrastructure pads		2021 Workplan - Mine Site workshops & and crushing area expansion - MSC laydown expansion - Laydown areas road aggregate storage (Km 106, 107 & 108) - Explosives plant secondary storage - Waste Rock Facility - Expansion 2022 Workplan: - Ore Stockpiling area at KM 105.5 (2022-2) - Expansion to KM 105 Equipment Laydown east (2022-3) - Expansion to KM 105 Equipment Laydown west (2022-3) - Mobile equipment laydown and tire facility (2022-4) - 470 Hillside Road (2022-6) - 510 Hillside Road (2022-6)	m2	338,680	20GCS	\$1.49	\$504,633	100%	\$504,633	\$0
Grade and contour laydown areas		- Bypass road from cross-cut road towards waste dump (2022-6) - Construction of a West perimeter road to bypass pit (2022-6) - Expansion to the sedimentation pond at KM 105 to manage surface water runoff (2022-7) - Construction of new Sedimentation Pond SDLT-1 (2022-12) - Expansion to the Water Treatment Plant Pad (2022-16)	m2	393,821	20GCS	\$1.49	\$586,793	100%	\$586,793	\$0
Grade and contour laydown areas		2022-R Workplan: KM110.5 Laydown for Mine Ops (2019-13) Km107 Stockpile and access Road (2019-23) KM107 Sedimentation Pond (2019-23)	m2	(104,889)	20GCS	\$1.49	(\$156,285)	100%	(\$156,285)	\$0
Open Pit Development (on IOL)		2022-R: Deposit 1 - Drainage Channel	m3	600	22OPS	\$12.66	\$7,596	100%	\$7,596	\$0
Waste Management (on IOL)		2022-R: Mine Site Hazardous Waste Bern 2021 Work Plan (see note):	m2	1,820	20GCS	\$1.49	\$2,712	100%	\$2,712	\$0
		2021-R: - Actual Disturbed Area Reconciliation - 2020 Satellite Image - Proposed Disturbed Area - 2021 Work Plan and Prior	m2	-1,160,363	20GCS	\$1.49	(\$1,728,941)	100%	(\$1,728,941)	\$0
Grade and Re-Contour Reconciliation (on IOL)		- Reconciled EBS Input 2014-2021 2022 Workplan 2021-R: - Actual Disturbed Area Reconciliation - 2020 Satellite Image; - Proposed Disturbed Area Reconciliation - 2021 Work Plan and Prior; and, - Reconciled EBS Input 2014 to 2021	m2	229,143	20GCS	\$1.49	\$341,423	100%	\$341,423	\$0
		2022-R: - Reconciled EBS Input 2014-2022 - IOL - Actual Disturbed Area Reconciliation - 2021 Satellite Image - IOL - Proposed Disturbed Area Reconciliation - 2022 Work Plan and Prior - IOL 2021 Work Plan (see note):	m2	253,553	20GCS	\$1.49	\$377,793	100%	\$377,793	\$0
Grade and Re-Contour Reconciliation (on Crown Land)		2021-R: - Reconciled EBS Input 2014-2021 - Actual Disturbed Area - 2020 Satellite Image - Proposed Disturbed Area - 2021 Work Plan and Prior 2022-R: - Reconciled EBS Input 2014-2022 - Crown	m2	0	20GCS	\$1.49	\$0	100%	\$0	\$0
Grade and Re-Contour Reconciliation (on Crown Land)		- Actual Disturbed Area - 2021 Satellite Image - Crown Land - Proposed Disturbed Area - 2022 Work Plan and Prior - Crown Land 2020 Revised Workplan (2020 & 2020-R)	m2	432	20GCS	\$1.49	\$644	100%	\$644	\$0
Fill Application		2020-AR	m2	369	20PFS	\$38.83	\$14,328	100%	\$14,328	\$0
		2021 Work Plan (2021 & 2021-R)	m2	0	20PFS	\$38.83	\$0	100%	\$0	\$0
		2021 Addendum (2021-D)	m2	415	20PFS	\$38.83	\$16,114	100%	\$16,114	\$0
			m2	-75	20PFS	\$38.83	(\$2,912)	100%	(\$2,912)	\$0

Building / Equip Name:		Mine Site	Bldg / Equip #1							
ACTIVITY/MATERIAL		Notes	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
Fill application	2022 Workplan: - Third of Fill Application 2022 - Third of Fill Application 2022-R	m2	-102	20PFS	\$38.83	(\$3,961)	100%	(\$3,961)	\$0	
Grade and Re-Countour (2023-R)	Expansion to KM 105 Equipment Laydown east (27,509 m2) and west (36,332 m2)	m2	-27509	20GCS	\$1.49	(\$40,988)	100%	(\$40,988)	\$0	
		m2	-36332	20GCS	\$1.49	(\$54,135)	100%	(\$54,135)	\$0	
Grade and Re-Countour (2023-R)	Construction of a West perimeter road to bypass pit (74,577 m2), 510 Hillside Road (11,423 m2), 470 Hillside Road (2,429 m2) and Bypass road from cross-cut road towards waste dump(24,534 m2).		-74577	20GCS	\$1.49	(\$111,120)	100%	(\$111,120)	\$0	
		m2	-11423	20GCS	\$1.49	(\$17,020)	100%	(\$17,020)	\$0	
		m2	-2429	20GCS	\$1.49	(\$3,619)	100%	(\$3,619)	\$0	
		m2	-24534	20GCS	\$1.49	(\$36,556)	100%	(\$36,556)	\$0	
Grade and Re-Contour (2023-R)	Expansion to the Water Treatment Plant Pad (10,500 m2)	m2	-10500	20GCS	\$1.49	(\$15,645)	100%	(\$15,645)	\$0	
Grade and Re-Contour Laydown Areas (2023-R)	Expansion of MSC laydown for vehicle parking (5,243 m2).	m2	-5243.0	20GCS	\$1.49	(\$7,812)	100%	(\$7,812)	\$0	
	Expansion of the warehouse laydown area for additional storage of seacans and equipment. Total area of 3,200 m2.	m2	-3200.0	20GCS	\$1.49	(\$4,768)	100%	(\$4,768)	\$0	
	Laydown area for parking and equipment storage at Km 107.5.	m2	-91000.0	20GCS	\$1.49	(\$135,590)	100%	(\$135,590)	\$0	
Grade and Re-contour (2023-R)	Expansion of the 800 person camp pad to the north by approximately 12,000 m2 to accommodate additional support offices and buildings.	m2	-12000.0	20GCS	\$1.49	(\$17,880)	100%	(\$17,880)	\$0	
GRADE AND CONTOUR, WITH LINER - Unit costs include liner removal and disposal, backfill, compaction and sacrifice with a dozer										
Grade and contour with liner: - various	2020 EBS	m2	107,358	20GCLS	\$4.12	\$442,315	100%	\$442,315	\$0	
Grade and Re-Contour with Liner	2022 Workplan: - Expansion of Landfarm Cell 3 (2022-1) - Construction of Landfarm Cell 4 (2022-1) - Expansion to the sedimentation pond at KM 105 to manage surface water runoff (2022-7) - Construction of new Sedimentation Pond SDLT-1(2022-12) - Construction of new Sedimentation Pond Camp Lake (2022-20)	m2	43,264	20GCLS	\$4.12	\$178,248	100%	\$178,248	\$0	
	2022-R: - Hazardous Waste Berm - New 2019 - Mine Site Hazardous Waste Berm	m2	2,340	20GCLS	\$4.12	\$9,641	100%	\$9,641	\$0	
	2021-R: - Actual Lined Disturbed Area - 2020 Satellite Image - Proposed Lined Disturbed Area - 2021 Work Plan and Prior - Reconciled EBS Input 2014-2021 - Lined	m2	-30,105	20GCLS	\$4.12	(\$124,033)	100%	(\$124,033)	\$0	
	2022-R: - Reconciled EBS Input 2014-2022 - Lined - IOL - Actual Lined Disturbed Area - 2021 Satellite Image - IOL - Proposed Lined Disturbed Area - 2022 Work Plan and Prior - IOL	m2	2,844	20GCLS	\$4.12	\$11,717	100%	\$11,717	\$0	
Grade and Re-contour (2023-R) - Split 50/50 with Milne Port	Construction of new Sedimentation Pond Camp Lake (10,000 m2) - lined	m2	-5000.0	20GCLS	\$4.12	(\$20,600)	100%	(\$20,600)	\$0	

Building / Equip Name:		Mine Site		Bldg / Equip # 1						
ACTIVITY/MATERIAL		Notes	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
LANDFILL FOR DEMOLITION WASTE										
Place fill material over demolition waste (Mine Site Landfill)	Includes drill and blasting of material aggregated crushing, excavation of fill, load and haul of fill material, backfill and compact source of material, and fill application. Assumes avg fill depth 1.5m over 6m of demolition waste (Ref 1, pg 17). For 2018 work plan see table 3-9 in the Marginal estimate for quantity and 2017 Work Plan Addendum Table 3-8 Add 8948 m2. 2019 marginal	m2	20,068	20PFS	\$38.83	\$779,240	100%	\$779,240	\$0	
		m2	2,664	20PFS	\$38.83	\$103,443	100%	\$103,443	\$0	
SPECIALIZED ITEMS										
Electrical Cable	Includes the removal, loading, hauling and disposal of cable (Ref 1, pg 41). 2017 Work Plan add 3500 m of cable.	m	19,700	20ECS	\$21.25	\$418,625	100%	\$418,625	\$0	
	2020 Revised Workplan: - Cabling for Lighting at Mine Site Warehouse	m	600	20ECS	\$21.25	\$12,750	100%	\$12,750	\$0	
	2021 Workplan: - Power Distribution System - Electrical Cable Installation - Mary River Powerhouse to Dyno Nobel explosives facility (500 m), and Mary River E-House 3 to KM 104 laydown (300 m) 2022 Workplan: - Power Distribution cabling from the new KM110 building to the Mine water treatment facility (2022-11) - Power Distribution cabling and distribution equipment for a new service from the Port Power house area to CV-001 on the shiploader (2022-19) - Power Distribution cabling (from E-House 3 to KM 104 laydown) (2021-1) - Power Distribution cabling (from the Powerhouse to	m	800	20ECS	\$21.25	\$17,000	100%	\$17,000	\$0	
Electrical Cable	- Equipment quantities updated to reflect 2017 Work Plan addendum Table 3-6 2 units one at Milne Port and one at Mine Site.	m	2,100	20ECS	\$21.25	\$44,625	100%	\$44,625	\$0	
Incinerator	Equipment quantities updated to reflect 2017 Work Plan addendum Table 3-6 2 units one at Milne Port and one at Mine Site.	each	2	20FIS	\$7,925.00	\$15,850	100%	\$15,850	\$0	
	2020 Revised Workplan	each	1	20FIS	\$7,925.00	\$7,925	100%	\$7,925	\$0	
Remove Piping	2020 Revised Workplan: - Trasfer line for Deposit 1 to Waste Rock Facility - Fuel Line from new (2019) bulk fuel storage facility to existing bulk fuel storage facility estimate	m	3,750	20RPS	\$53.13	\$199,238	95%	\$189,276	\$9,962	
Fuel Line and Associated Piping (2023-R)	Installation of fuel line and associated piping between the mine site fuel storage areas and gensets. Total of 250m pipe.	m	-250	20RPS	\$53.13	(\$13,283)	95%	(\$12,618)	-\$664	
Potable Water	Equipment quantities updated to reflect 2017 Work Plan addendum Table 3-6 2 units one at Milne Port and one at Mine Site.	each	2	20PWS	\$7,925.00	\$15,850	0%	\$0	\$15,850	
Total						\$10,715,182		\$10,530,332	\$184,850	
% of Total								98%	2%	

Building / Equip Name: Milne Port Bldg / Equip #: 2

ACTIVITY/MATERIAL	Notes	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
DISPOSE MOBILE EQUIPMENT - Unit Costs includes disassembly and decontamination required for on-site disposal, load and transport to landfill									
DISPOSE MECHANICAL EQUIPMENT - Unit Costs includes disassembly and decontamination required for on-site disposal, load and transport to landfill									
Light Tanks	Light non- fuel storage tanks. The cleaning, plugging, disassembly and removal of all associated pipeline infrastructure is included (Ref 1, pg 26).	each	3	20TLS	\$1,710.42	\$5,131	0%	\$0	\$5,131
	2020 Revised Workplan	each	-3	20LiDTS	\$2,950.00	(\$8,850)	100%	(\$8,850)	\$0
Medium Tanks	Medium non- fuel storage tanks. The cleaning, plugging, disassembly and removal of all associated pipeline infrastructure is included (Ref 1, pg 26).	each	0	20MTS	\$5,900.00	\$0	0%	\$0	\$0
Light Diesel Tanks	Small fuel tanks (10,000-20,000L) (Ref 1, pg 27)	each	1	20LiDTS	\$2,950.00	\$2,950	100%	\$2,950	\$0
	2020-R: -Diesel Tank 1,000L (-2) -Diesel Tank 9,000L (-1)	each	-3	20LiDTS	\$2,950.00	(\$8,850)	100%	(\$8,850)	\$0
Medium Diesel Tanks	Medium fuel tanks (500,000-750,000L). The cleaning, plugging, disassembly and removal of all associated pipeline infrastructure is included (Ref 1, pg 27). Add a tank from the 2017 Work Plan Addendum - Milne Port	each	1	20MDTS	\$12,982.50	\$12,983	100%	\$12,983	\$0
Large Diesel Tanks	Large fuel tanks (3ML-5ML). The cleaning, plugging, disassembly and removal of all associated pipeline infrastructure is included (Ref 1, pg 27). Add a tank from the 2017 Work Plan Addendum - Milne Port	each	1	20LDTS	\$85,157.50	\$85,158	100%	\$85,158	\$0
Largest Diesel Tanks	Largest fuel tanks (>5ML-15ML). The cleaning, plugging, disassembly and removal of all associated pipeline infrastructure is included (Ref 1, pg 27). Add a tank from the 2017 Work Plan Addendum - Milne Port	each	1	20XLDTS	\$137,227.50	\$137,228	100%	\$137,228	\$0
Misc. Items	On-site disposal. Miscellaneous (minor) items were defined as any item less than 200 kg not captured in other unit costs (Ref 1, pg 42).	each	0	20MEIS	\$0.00	\$0	100%	\$0	\$0

Building / Equip Name:

Milne Port

Bldg / Equip #: 2

ACTIVITY/MATERIAL	Notes	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
REMOVE BUILDINGS - Unit Costs include disassembling, removing or securing all items and load and transport									
	Trailers and pre-fabricated buildings. (Ref 1, pg 29). Add 2017 Work Plan 49-person Camp (ATCO, not soft-walled, 950 m2) Add 2017 Work Plan Addendum includes 380 person temp hardwall camp, construction offices, lunch rooms and washcars at both Mine Site and Milne Port10936m2 Add 2018 Work Plan see table 3-1 1218m2 2019 estimate (See table 3-1 of 2019 Marginal Estimate)	m2	19,130	20RBMS	\$47.64	\$911,353	100%	\$911,353	\$0
Modular	2020 Revised Workplan: - Double Trailer (2 or more): - Sana Workshop - Crusher services trailer	m2	572	20RBMS	\$47.64	\$27,250	90%	\$24,525	\$2,725
	2020-R: - Sana Workshop	m2	500	20RBMS	\$47.64	\$23,820	90%	\$21,438	\$2,382
	2021 Workplan: - Quonset hut structure at Milne Port Firehall	m2	100	20RBMS	\$47.64	\$4,764	90%	\$4,288	\$476
Modular (2023-R)	Construction of one (1) quonset hut structure at the aerodrome, and one (1) quonset hut structure adjacent to the Milne Port Fire Hall for emergency equipment storage. (assumed each 100 m2)	m2	-100	20RBMS	\$47.64	(\$4,764)	90%	(\$4,288)	-\$476
		m2	1,525	20RBFS	\$33.34	\$50,844	100%	\$50,844	\$0
Fold Away Buildings	2020 Revised Workplan: - Carpenter Workshop	m2	100	20RBFS	\$33.34	\$3,334	100%	\$3,334	\$0
	2020-R: -Carpenter Workshop	m2	100	20RBFS	\$33.34	\$3,334	100%	\$3,334	\$0
		m2	5,392	20RBSS	\$38.11	\$205,502	100%	\$205,502	\$0
Soft-Walled	2020-R: - Aecon Workshop	m2	1,650	20RBSS	\$38.11	\$62,882	100%	\$62,882	\$0
ISO Shipping Containers (Shelters, Comm. Facilities)		m2	15	20RBIS	\$23.82	\$357	100%	\$357	\$0
ISO Shipping Containers	2022 Workplan: - Addition of offices/trailers at the Environment Dep. (2022-18) - Enhancement of ERT training grounds (2022-17)	m2	115	20RCBIS	\$23.82	\$2,739	100%	\$2,739	\$0
	Addition of offices/ trailers at the Environment Department work areas.	m2	-55.74	20RCBIS	\$23.82	(\$1,328)	100%	(\$1,328)	\$0
ISO Shipping Containers (2023-R)	Enhancement of training grounds for the Emergency Response Team with fire retardant infrastructure and secondary spill containment.	m2	-59.5	20RCBIS	\$23.82	(\$1,416)	100%	(\$1,416)	\$0
Water and Wastewater Treatment Facilities	2015 Security Assessment pg 39 Equipment quantities updated to reflect 2017 Work Plan addendum Table 3-6 2 units one at Milne Port and one at Mine Site.	each	2	20WWTS	\$8,775.00	\$17,550	0%	\$0	\$17,550
REMOVE CONTAMINATED BUILDINGS - Unit Costs include disassembling, removing or securing all items, decontamination and load and transport									
	Trailers and pre-fabricated buildings. (Ref 1, pg 29).	m2	1,171	20RCBMS	\$114.89	\$134,536	85%	\$114,356	\$20,180
Modular	2021 Workplan: - Washcar for Ore Pad - New warehouse (seacan tent) on laydown LP2 - Parts/staging area (seacan tent structure) - Offices /workshops at the stockpile and shiploader	m2	1,911	20RCBMS	\$114.89	\$219,555	85%	\$186,622	\$32,933
Modular (2023-R)	Construction of new warehouse facility (seacan tent structure) on laydown LP2 x 1127 m2	m2	-1,127	20RCBMS	\$114.89	(\$129,481)	85%	(\$110,059)	-\$19,422
	Construction of offices and workshops at the stockpile and shiploader (x 208 m2)	m2	-208	20RCBMS	\$114.89	(\$23,897)	85%	(\$20,313)	-\$3,585
		m2	3,194	20RCBFS	\$114.04	\$364,244	100%	\$364,244	\$0
Fold Away Buildings	2021 Workplan: - Fold Away Building Contaminated (480 ft2)	m2	1,250	20RCBFS	\$114.04	\$142,550	100%	\$142,550	\$0
Soft-Walled	Add 2017 Work Plan Addendum Maintenance Garage at Milne Port 2046m2	m2	4,177	20RCBSS	\$128.86	\$538,248	100%	\$538,248	\$0
ISO Shipping Containers (Shelters, Comm. Facilities)		m2	134	20RCBIS	\$23.82	\$3,192	100%	\$3,192	\$0

Building / Equip Name:

Milne Port

Bldg / Equip #: 2

ACTIVITY/MATERIAL	Notes	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
BREAK FOUNDATIONS									
Precast Foundations	Includes load and transport of precast concrete foundations (Ref 1, pg 34).	m2	3,513	20FCS	\$30.86	\$108,411	100%	\$108,411	\$0
Slab on Grade	Includes perforating the concrete slabs on grade 2017 Work Plan Addendum for pre-cast concrete foundation and Maintenance Garages at Milne Site Add 10046 m2	m2	11,812	20FSS	\$30.00	\$354,360	100%	\$354,360	\$0
Timber Cribbing	Includes disassembly load and transport of the timber cribbing	m2	732	20TCS	\$16.67	\$12,202	100%	\$12,202	\$0
GRADE AND CONTOUR, GENERAL - Unit costs are inclusive of backfill, compaction and sacrifice with a dozer									
Grade and contour: - laydown areas - building footprints - infrastructure pads	2020 EBS	m2	1,232,507	20GCS	\$1.49	\$1,836,435	100%	\$1,836,435	\$0
Grade and Re-Contour Laydown Areas	2022-R: - Construction of berm and linear steel support structure on laydown LP3 (2019-7)	m2	6000	20GCS	\$1.49	\$8,940	100%	\$8,940	\$0
Grade and Re-Contour Reconciliation (on IOL)	2021-R: - Actual Disturbed Area - 2020 Satellite Image - Proposed Disturbed Area - 2021 Work Plan and Prior - Reconciled EBS Input 2014-2021	m2	2,454,393	20GCS	\$1.49	\$3,657,046	100%	\$3,657,046	\$0
Grade and Re-Contour Reconciliation (on IOL)	2022-R: - Reconciled EBS Input 2014-2022 - IOL - Actual Disturbed Area Reconciliation - 2021 Satellite Image - IOL - Proposed Disturbed Area Reconciliation - 2022 Work Plan and Prior - IOL	m2	253,553	20GCS	\$1.49	\$377,793	100%	\$377,793	\$0
Grade and Re-Contour Reconciliation (on Crown Land)	2021-R: - Reconciled EBS Input 2014-2021 - Actual Disturbed Area - 2020 Satellite Image - Proposed Disturbed Area - 2021 Work Plan and Prior	m2	-245,953	20GCS	\$1.49	(\$366,470)	100%	(\$366,470)	\$0
Grade and Re-Contour Reconciliation (on Crown Land)	2022-R: - Reconciled EBS Input 2014-2022 - Crown - Actual Disturbed Area - 2021 Satellite Image - Crown Land - Proposed Disturbed Area - 2022 Work Plan and Prior - Crown Land	m2	432	20GCS	\$1.49	\$644	100%	\$644	\$0
Fill Application	2020 Revised Workplan (2020 & 2020-R)	m2	369	20PFS	\$38.83	\$14,328	100%	\$14,328	\$0
	2020-AR	m2	0	20PFS	\$38.83	\$0	100%	\$0	\$0
	2021 Work Plan (2021 & 2021-R)	m2	415	20PFS	\$38.83	\$16,114	100%	\$16,114	\$0
	2021 Addendum (2021-D)	m2	-75	20PFS	\$38.83	(\$2,912)	100%	(\$2,912)	\$0
Fill application	2022 Workplan: - Third of Fill Application 2022 - Third of Fill Application 2022-R	m2	-102	20PFS	\$38.83	(\$3,961)	100%	(\$3,961)	\$0
	Development of quarry Q1	m2	-226000.0	20GCS	\$1.49	(\$336,740)	100%	(\$336,740)	\$0
Grade and Re-Countour (2023-R)	Expansion of the Milne Port Ore Stockpile and water management facilities to optimize stockpiling and shiploading operations, resulting in additional 140,000 m2 of stockpile area and 15,000 m2 lined sedimentation pond.	m2	-140000.0	20GCS	\$1.49	(\$208,600)	100%	(\$208,600)	\$0
	Construction of berm and linear steel support structure on laydown LP3 for receipt and storage of stacker/reclaimer equipment. Berm dimensions are 200m x 30m x 2m, constructed on existing disturbed area.	m2	-6000.0	20GCS	\$1.49	(\$8,940)	100%	(\$8,940)	\$0

Building / Equip Name:		Milne Port		Bldg / Equip #: 2						
ACTIVITY/MATERIAL		Notes	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
GRADE AND CONTOUR, WITH LINER - Unit costs include liner removal and disposal, backfill, compaction and sacrifice with a dozer										
Grade and contou with liner: - various	2020 EBS		m2	98,724	20GCLS	\$4.12	\$406,743	100%	\$406,743	\$0
Grade and Re-Contour with Liner Reconciliation (on IOL)	2021-R: - Actual Lined Disturbed Area - 2020 Satellite Image - Proposed Lined Disturbed Area - 2021 Plan & Prior - Reconciled EBS Input 2014-2021 - Lined		m2	51,077	20GCLS	\$4.12	\$210,437	100%	\$210,437	\$0
Grade and Re-Contour with Liner Reconciliation (on IOL)	2022-R: - Reconciled EBS Input 2014-2022 - Lined - IOL - Actual Lined Disturbed Area - 2021 Satellite Image - IOL - Proposed Lined Disturbed Area - 2022 Work Plan and Prior - IOL		m2	2,844	20GCLS	\$4.12	\$11,717	100%	\$11,717	\$0
Grade and Re-Contour with Liner (2023-R)	Expansion of the Milne Port Ore Stockpile and water management facilities to optimize stockpiling and shiploading operations, resulting in additional 140,000 m2 of stockpile area and 15,000 m2 lined sedimentation pond.		m2	-15000.0	20GCLS	\$4.12	(\$61,800)	100%	(\$61,800)	\$0
Grade and Re-Contour with Liner (2023-R)	Installation of East Sedimentation Pond Expansion (2a) approved with Modification No. 9, but for which security has not been allocated.		m2	-4400.0	20GCLS	\$4.12	(\$18,128)	100%	(\$18,128)	\$0
Grade and Re-Contour with Liner (2023-R)	Construction of new polishing waste stabilization pond (PWSP) at 380 Person camp to manage off-spec effluent from the 380p camp waste water treatment plant.		m2	-4180.0	20GCLS	\$4.12	(\$17,222)	100%	(\$17,222)	\$0
Grade and Re-contour (2023-R) - Split 50/50 with Mine Site	Construction of new Sedimentation Pond Camp Lake (10,000 m2) - lined		m2	-5000.0	20GCLS	\$4.12	(\$20,600)	100%	(\$20,600)	\$0
LANDFILL FOR DEMOLITION WASTE										
Place fill material over demolition waste	2017 Work Plan Addendum		m2	2,218	20PFS	\$38.83	\$86,125	100%	\$86,125	\$0
SPECIALIZED ITEMS										
Electrical Cable	Includes the removal, loading, hauling and disposal of cable (Ref 1, pg 41). 2017 Work Plan add 3500 m of cable.		m	14,600	20ECS	\$21.25	\$310,250	100%	\$310,250	\$0
	2021 Workplan: - Power Distribution System - Electrical Cable Installation - Milne Port 'Steensby Camp' power line (100 m)		m	100	20ECS	\$21.25	\$2,125	100%	\$2,125	\$0
Incinerator	Equipment quantities updated to reflect 2017 Work Plan addendum Table 3-6 2 units one at Milne Port and one at Mine Site.		each	2	20FIS	\$7,925.00	\$15,850	100%	\$15,850	\$0
	2020 Revised Workplan		each	1	20FIS	\$7,925.00	\$7,925	100%	\$7,925	\$0
	Equipment quantities updated to reflect 2017 Work Plan addendum Table 3-6 2 units one at Milne Port and one at Mine Site.		each	2	20PWS	\$7,925.00	\$15,850		\$0	\$15,850
Potable Water	2020 Revised Workplan (remove Desalination Plant)		each	-1	20PWS	\$7,925.00	(\$7,925)	100%	(\$7,925)	\$0
	2020-R (Desalination Plant)		each	-1	20PWS	\$7,925.00	(\$7,925)	100%	(\$7,925)	\$0
	2021 Workplan: - Desalination Plant		each	1	20PWS	\$7,925.00	\$7,925	100%	\$7,925	\$0
Potable Water (2023-R)	Desalination Plant		each	-1	20PWS	\$7,925.00	(\$7,925)	100%	(\$7,925)	\$0
Marine Manifold Relocation (2023-R)	Marine manifold building relocation - moving from current location north of fuel tank farm to upgraded freight dock location		m	-750	20RPS	\$53.13	(\$39,848)	100%	(\$39,848)	\$0
Total							\$9,133,143		\$9,059,398	\$73,745
% of Total									99%	1%

1 Building / Equip Name: Tote Road Bldg / Equip #: 2

ACTIVITY/MATERIAL	Notes	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
DISPOSE MOBILE EQUIPMENT - Unit Costs includes disassembly and decontamination required for on-site disposal, load and transport to landfill									
DISPOSE MECHANICAL EQUIPMENT - Unit Costs includes disassembly and decontamination required for on-site disposal, load and transport to landfill									
REMOVE BUILDINGS - Unit Costs include disassembling, removing or securing all items and load and transport									
Modular		m2	0	20RBMS	\$47.64	\$0	89%	\$0	\$0
Modular - 100% on IOL	2020 Revised Workplan: - Washrooms at KM26 and KM 80 IT Towers	m2	72	20RBMS	\$47.64	\$3,430	100%	\$3,430	\$0
Modular - 100% on Crown Land	2020 Revised Workplan	m2	0	20RBMS	\$47.64	\$0	100%	\$0	\$0
Fold Away Buildings		m2	0	20RBFS	\$33.34	\$0	100%	\$0	\$0
ISO Shipping Containers (Shelters, Comm. Facilities)	Assume 7% on Crown Land	m2	0	20RBFS	\$33.34	\$0	100%	\$0	\$0
ISO Shipping Containers (Shelters, Comm. Facilities)	2017 Actual work not previously allocated (see Table 2-3 of 2018 Marginal cost) Add 1050 m2	m2	1,273	20RBIS	\$23.82	\$30,323	100%	\$30,323	\$0
REMOVE CONTAMINATED BUILDINGS - Unit Costs include disassembling, removing or securing all items, decontamination and load and transport									
Modular		m2	0	20RCBMS	\$114.89	\$0	100%	\$0	\$0
Fold Away Buildings	Mobile Maintenance Depot (100% on Crown Land)	m2	682	20RCBFS	\$114.04	\$77,775	100%	\$77,775	\$0
ISO Shipping Containers (Shelters, Comm. Facilities)		m2	0	20RCBIS	\$23.82	\$0	100%	\$0	\$0
Temporary Construction Warehouse and Office Allowance		m2	0	20RCBTS	\$25,000.00	\$0	100%	\$0	\$0
BREAK FOUNDATIONS									
Slab on Grade	Mobile Maintenance Depot (100% on Crown Land)	m2	682	20FSS	\$30.00	\$20,460	100%	\$20,460	\$0
Timber Cribbing	Includes disassembly load and transport of the timber cribbing. Assume 7% on Crown Land	m2	59	20TCS	\$16.67	\$984	100%	\$984	\$0
GRADE AND CONTOUR, GENERAL - Unit costs are inclusive of backfill, compaction and sacrifice with a dozer									
Culvert Removal		m	80	15CRS	\$1,094.48	\$87,558		\$0	\$87,558
	2020 EBS	m2	1,391,776	20GCS	\$1.49	\$2,073,746	100%	\$2,073,746	\$0
Grade and Re-Contour Reconciliation (on IOL)	2021-R: - Actual Disturbed Area - 2020 Satellite Image - Proposed Disturbed Area - 2021 Plan & Prior - Reconciled EBS Input 2014-2021	m2	-1,410,503.00	20GCS	\$1.49	(\$2,101,649)	100%	(\$2,101,649)	\$0
	2021-D: - Quarry Areas: Q1, PQ2a, PQ12a, Q5, and Q5 expansion; and, - Laydown Areas: 4, 7, 10, and 13	m2	-2,711,393	20GCS	\$1.49	(\$4,039,976)	100%	(\$4,039,976)	\$0
Grade and Re-Contour Reconciliation (on IOL)	2022-R: - Reconciled EBS Input 2014-2022 - IOL - Actual Disturbed Area Reconciliation - 2021 Satellite Image - IOL - Proposed Disturbed Area Reconciliation - 2022 Work Plan and Prior - IOL	m2	253,553	20GCS	\$1.49	\$377,793	100%	\$377,793	\$0
	2020 EBS	m2	362,320	20GCS	\$1.49	\$539,857	100%	\$539,857	\$0
Grade and Re-Contour Reconciliation (on Crown Land)	2021-R: - Reconciled EBS Input 2014-2021 - Actual Disturbed Area - 2020 Satellite Image - Proposed Disturbed Area - 2021 Plan and Prior	m2	359,182	20GCS	\$1.49	\$535,181	100%	\$535,181	\$0
Grade and Re-Contour Reconciliation (on Crown Land)	2022-R: - Reconciled EBS Input 2014-2022 - Crown - Actual Disturbed Area - 2021 Satellite Image - Crown Land - Proposed Disturbed Area - 2022 Work Plan and Prior - Crown Land	m2	432	20GCS	\$1.49	\$644	100%	\$644	\$0
Remove Liner	Mobile Maintenance Depot (100% on Crown Land)	m2	683	20GCLS	\$4.12	\$2,814	100%	\$2,814	\$0
	2020 Revised Workplan (2020 & 2020-R)	m2	369	20PFS	\$38.83	\$14,328	100%	\$14,328	\$0
Fill Application	2020-AR	m2	0	20PFS	\$38.83	\$0	100%	\$0	\$0
	2021 Work Plan (2021 & 2021-R)	m2	415	20PFS	\$38.83	\$16,114	100%	\$16,114	\$0
	2021 Addendum (2021-D)	m2	-75	20PFS	\$38.83	(\$2,912)	100%	(\$2,912)	\$0
Fill application	2022 Workplan: - Third of Fill Application 2022 - Third of Fill Application 2022-R	m2	-102	20PFS	\$38.83	(\$3,961)	100%	(\$3,961)	\$0

Building / Equip Name:		Tote Road		Bldg / Equip #: 3						
ACTIVITY/MATERIAL		Notes	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
Grade and Re-Contour (2023-R)	Development and expansion of quarries, consisting of, four (4) new quarries along the Tote Road with 8m wide access roads, expansion of previously proposed but not constructed quarry Q5, and expansion of the working limits of existing quarry Q1.	m2	-194000	20GCS	\$1.49	(\$289,060)	100%	(\$289,060)	\$0	
	Development of six (6) laydowns adjacent to the existing Tote Road for material stockpiling and storage. The laydowns will be constructed by filling directly over undisturbed ground and 31m away from the high water mark of local waterbodies. The laydowns will be constructed of 500 mm thickness quarried rock with granular surfacing, free draining to appropriate ditches and water courses. All laydowns to cover approximately 2 ha, with one laydown at km 7 laydown covering approximately 7.5 ha.	m2	-92500	20GCS	\$1.49	(\$137,825)	100%	(\$137,825)	\$0	
GRADE AND CONTOUR, WITH LINER - Unit costs include liner removal and disposal, backfill, compaction and sacrifice with a dozer										
Waste Disposal		m2		20GCLS	\$5.31	\$0	100%	\$0	\$0	
Fuel tank farm dyke		m2		20GCLS	\$5.31	\$0	100%	\$0	\$0	
Hazardous waste berm		m2		20GCLS	\$5.31	\$0	100%	\$0	\$0	
Bulk fuel storage facility (Bladder Farm)		m2		20GCLS	\$5.31	\$0	100%	\$0	\$0	
Other		m2		20GCLS	\$5.31	\$0	100%	\$0	\$0	
Grade and contour with liner		2020 EBS	m2	13,170	20GCS	\$1.49	\$19,623	100%	\$19,623	\$0
Grade and Re-Contour with Liner Reconciliation (on IOL)		2021-R: - Actual Lined Disturbed Area - 2020 Satellite Image - Proposed Lined Disturbed Area - 2021 Plan & Prior - Reconciled EBS Input 2014-2021 - Lined	m2	-109,626	20GCLS	\$4.12	(\$451,659)	100%	(\$451,659)	\$0
Grade and Re-Contour with Liner Reconciliation (on IOL)		2022-R: - Reconciled EBS Input 2014-2022 - Lined - IOL - Actual Lined Disturbed Area - 2021 Satellite Image - IOL - Proposed Lined Disturbed Area - 2022 Work Plan and Prior - IOL	m2	2,844	20GCLS	\$4.12	\$11,717	100%	\$11,717	\$0
LANDFILL FOR DEMOLITION WASTE			m2		20PFS	\$44.37	\$0	100%	\$0	\$0
RECLAIM ROADS										
Remove bridges (IOL)		The unit cost is inclusive of the demolition and removal of a bridge. Assumed not contaminated (Ref 1, pg 36).	each	3	20BRS	\$161,904.76	\$485,714	0%	\$0	\$485,714
Remove bridges (CROWN)		The unit cost is inclusive of the demolition and removal of a bridge. Assumed not contaminated (Ref 1, pg 36).	each	1	20BRS	\$161,904.76	\$161,905	0%	\$0	\$161,905
Remove Culverts (IOL)		The unit cost is inclusive of the travel time to and from the culvert location, the earthwork necessary expose a culvert and the removal of the culvert material (Ref 1, pg 21).	each	372	15CRS	\$1,094.48	\$407,147	0%	\$0	\$407,147
Remove Culverts (CROWN)		The unit cost is inclusive of the travel time to and from the culvert location, the earthwork necessary expose a culvert and the removal of the culvert material (Ref 1, pg 21).	each	11	15CRS	\$1,094.48	\$12,039	0%	\$0	\$12,039
SPECIALIZED ITEMS										
Total						(\$2,147,888)		(\$3,302,252)	\$1,154,363	
% of Total								154%	-54%	

Building / Equip Name:		Mine Site		Bldg / Equip : 1						
ACTIVITY/MATERIAL		Notes	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
DISPOSE MOBILE EQUIPMENT - Unit Costs includes disassembly and decontamination required for on-site disposal, load and transport to landfill										
Light Mobile Equipment	2020 Revised Workplan		each	21	20MOLS	\$729.17	\$15,313	100%	\$15,313	\$0
	2020-R		each	-24	20MOLS	\$729.17	(\$17,500)	100%	(\$17,500)	\$0
	Arbitration Reconciliation for 2020 Work Plan		each	-34	20MOLS	\$729.17	(\$24,792)	100%	(\$24,792)	\$0
	2020Arbitration Outcome		each	297	20MOLS	\$729.17	\$216,563	100%	\$216,563	\$0
	2021 Workplan		each	24	20MOLS	\$729.17	\$17,500	100%	\$17,500	\$0
	2021-R		each	-7	20MOLS	\$729.17	(\$5,104)	100%	(\$5,104)	\$0
Light Mobile Equipment	2021-D		each	-6	20MOLS	\$729.17	(\$4,375)	100%	(\$4,375)	\$0
	2022 Workplan (E-8, 19, 20, 21, 22, 24, 27, 29, 32, 30, 31)		each	31	20MOLS	\$729.17	\$22,604	100%	\$22,604	\$0
	2022-R (2021-26, 55, 17, 54, 59, 56, 57, 58, 60, 61, 62)		each	19	20MOLS	\$729.17	\$13,854	100%	\$13,854	\$0
	2022-R: Light Mobile Equipment (2021 Equipment Audit)		each	-17	20MOLS	\$729.17	(\$12,396)	100%	(\$12,396)	\$0
Medium Mobile Equipment	2020 Revised Workplan		each	77	20MOMS	\$1,162.50	\$89,513	100%	\$89,513	\$0
	2020-R		each	0	20MOMS	\$1,162.50	\$0	100%	\$0	\$0
	2020Arbitration Outcome		each	326	20MOMS	\$1,162.50	\$378,975	100%	\$378,975	\$0
	Arbitration Reconciliation for 2020 Work Plan		each	-61	20MOMS	\$1,162.50	(\$70,913)	100%	(\$70,913)	\$0
	2021 Workplan		each	21	20MOMS	\$1,162.50	\$24,413	100%	\$24,413	\$0
	2021-R		each	-13	20MOMS	\$1,162.50	(\$15,113)	100%	(\$15,113)	\$0
Medium Mobile Equipment	2021-D		each	-7	20MOMS	\$1,162.50	(\$8,138)	100%	(\$8,138)	\$0
	2022 Workplan (E-3, 4, 5, 15, 16)		each	10	20MOMS	\$1,162.50	\$11,625	100%	\$11,625	\$0
	2022-R (2021-21)		each	1	20MOMS	\$1,162.50	\$1,163	100%	\$1,163	\$0
	2022-R: Medium Mobile Equipment (2021 Equipment Audit)		each	-15	20MOMS	\$1,162.50	(\$17,438)	200%	(\$34,875)	\$17,438
Heavy Mobile Equipment	2020 Revised Workplan		each	41	20MOHS	\$2,075.00	\$85,075	100%	\$85,075	0
	2020-R		each	-17	20MOHS	\$2,075.00	(\$35,275)	100%	(\$35,275)	\$0
	2020Arbitration Outcome		each	312	20MOHS	\$2,075.00	\$647,400	100%	\$647,400	\$0
	Arbitration Reconciliation for 2020 Work Plan		each	-49	20MOHS	\$2,075.00	(\$101,675)	100%	(\$101,675)	\$0
	2021 Workplan		each	28	20MOHS	\$2,075.00	\$58,100	100%	\$58,100	\$0
	2021-R		each	-10	20MOHS	\$2,075.00	(\$20,750)	100%	(\$20,750)	\$0
Heavy Mobile Equipment	2021-D		each	-12	20MOHS	\$2,075.00	(\$24,900)	100%	(\$24,900)	\$0
	2022 Workplan (E-1, 2, 6, 7, 11, 12, 13, 14, 28)		each	13	20MOHS	\$2,075.00	\$26,975	100%	\$26,975	\$0
	2022-R (2021-6, 2021-40)		each	1	20MOHS	\$2,075.00	\$2,075	100%	\$2,075	\$0
	2022-R: Heavy mobile Equipment (2021 Equipment Audit)		each	-71	20MOHS	\$2,075.00	(\$147,325)	100%	(\$147,325)	\$0

Building / Equip Name:		Mine Site		Bldg / Equip : 1						
ACTIVITY/MATERIAL		Notes	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
DISPOSE MECHANICAL EQUIPMENT - Unit Costs includes disassembly and decontamination required for on-site disposal, load and transport to landfill										
Light mechanical equipment - Decontaminate and dispose on-site	2020 Revised Workplan		each	-12	20LMES	\$1,583.75	(\$19,005)	100%	(\$19,005)	\$0
	2020Arbitration Outcome		each	220	20LMES	\$1,583.75	\$348,425	100%	\$348,425	\$0
	2020-R		each	-22	20LMES	\$1,583.75	(\$34,843)	100%	(\$34,843)	0
	2021 Workplan: - Water Jet - Ceramic Cutting		each	1	20LMES	\$1,583.75	\$1,584	100%	\$1,584	0
	2021-R: - Light Plants		each	-7	20LMES	\$1,583.75	(\$11,086)	100%	(\$11,086)	0
	2021-D: - Water Jet - Ceramic Cutting		each	-1	20LMES	\$1,583.75	(\$1,584)	100%	(\$1,584)	0
Light Equipment - Decontaminate and dispose on-site	2022 Workplan: - Dewatering Pumps (E-9) - Large Water Pump (E-23) 2022-R:		each	5	20LMES	\$1,583.75	\$7,919	100%	\$7,919	\$0
	- Bean model 435 Water Pumps (2021-53) - Zinex A5 Diamond Drills (2021-52)		each	15	20LMES	\$1,583.75	\$23,756	100%	\$23,756	\$0
	2022-R: Light Equipment (2021 Equipment Audit)		each	22	20LMES	\$1,583.75	\$34,843	100%	\$34,843	\$0
	2020Arbitration Outcome		each	183	20MMES	\$3,392.50	\$620,828	100%	\$620,828	\$0
Medium mechanical equipment - Decontaminate and dispose on-site	2020 Revised Workplan		each	9	20MMES	\$3,392.50	\$30,533	100%	\$30,533	\$0
	2021 Workplan: - 15 kW Alternators		each	2	20MMES	\$3,392.50	\$6,785	100%	\$6,785	0
Medium Equipment - Decontaminate and dispose on-site	2021-R: - 600kw and 60kw generators; and, - Atlas 1000 mVA Transformers		each	-9	20MMES	\$3,392.50	(\$30,533)	100%	(\$30,533)	0
	2022 Workplan: - Type 3 E-House (E-26) - Type 1 E-House (E-25)		each	2	20MMES	\$3,392.50	\$6,785	100%	\$6,785	\$0
	2022-R: Medium Equipment (2021 Equipment Audit)		each	367	20MMES	\$3,392.50	\$1,245,048	100%	\$1,245,048	\$0
	2020-R		each	-2	20MEHS	\$32,950.00	(\$65,900)	100%	(\$65,900)	\$0
Heavy mechanical equipment - Decontaminate and dispose on-site	2020 Revised Workplan		each	5	20MEHS	\$32,950.00	\$164,750	100%	\$164,750	\$0
	2020Arbitration Outcome		each	74	20MEHS	\$32,950.00	\$2,438,300	100%	\$2,438,300	\$0
Heavy Equipment - Decontaminate and dispose on-site	2021-R: Stacker, Screen, 1000kW generator and Jaw Crusher unit		each	6	20MEHS	\$32,950.00	\$197,700	100%	\$197,700	\$0
	2022-R: Heavy Equipment (2021 Equipment Audit)		each	12	20MEHS	\$32,950.00	\$395,400	100%	\$395,400	\$0
REMOVE BUILDINGS - Unit Costs include disassembling, removing or securing all items and load and transport										
ISO Shipping Containers		2022 Workplan: - Lube/Def Container (E-18)	m2	30	20RBIS	\$23.82	\$715	100%	\$715	\$0
REMOVE CONTAMINATED BUILDINGS - Unit Costs include disassembling, removing or securing all items, decontamination and load and transport										
BREAK FOUNDATIONS										
GRADE AND CONTOUR, GENERAL - Unit costs are inclusive of backfill, compaction and sacrfication with a dozer										
GRADE AND CONTOUR, WITH LINER - Unit costs include liner removal and disposal, backfill, compaction and sacrfication with a dozer										
LANDFILL FOR DEMOLITION WASTE										
SPECIALIZED ITEMS										
Total							\$6,465,874		\$6,448,436	\$17,438
% of Total									99.73%	0.27%

Note:

1 Capital Expenditures and Short Term Water Treatment identified in 'Instructions' worksheet

ACTIVITY/MATERIAL	Notes	Units	Quantity	Cost Code	Unit Cost	Cost
BREACH DYKE EMBANKMENT						
STABILIZE SEDIMENT PONDS/WATER MANAGEMENT PONDS						
Grade and Contour with liner	Includes liner removal and disposal (Ref 1, pg 21) and backfill, compaction and scarification with a dozer (Ref 1, pg 19).	m2	49636.2	20GCLS	\$4.12	\$204,501
REDIRECT RUNOFF/CONSTRUCT DIVERSION DITCHES						
BREACH DITCHES						
DECOMISSION FRESH WATER SUPPLY						
WATER CONTROL IN RECLAMATION QUARRY						
REMOVE PIPELINES						
Remove pipes	The unit cost includes the cleaning, plugging, disassembly, loading, hauling and disposal of piping (Ref 1, pg 41).	m	19623	20RPS	\$53.13	\$1,042,570
GROUNDWATER COLLECTION SYSTEM						
CONSTRUCT CONTAMINATED WATER STORAGE POND						
CONSTRUCT PASSIVE TREATMENT SYSTEM (e.g. Constructed Wetland)						
CONSTRUCT WATER TREATMENT PLANT						
					Total	\$1,247,071
For cost of long-term/post-closure water treatment see "WATER TREATMENT" Worksheet"						

1 Interim Care and Maintenance (3 Year duration)

ACTIVITY/MATERIAL	Notes	Units	Quantity	Cost Code	Unit Cost	Cost
INTERIM CARE & MAINTENANCE						
on-site caretaker	Three caretakers for 36 months (assume 2 at 3w/1w and 1 at 2w/2w rotation). Assume 72 days of travel for each caretaker over 60 months. 10-hr days.	hr	20880	20BLS	\$75.00	\$1,566,000
extra personnel	Assume crew of 15 people for 56, 10-hr days, to stabilize site and equipment at both the Mine Site, and Milne Port. Blended unit rate is used to allow for different skill levels that would make up the crew.	hr	8400	20BLS	\$75.00	\$630,000
Mobilization of Workers Required for Stabilization Period (from northern communities)	Assume two rotations per worker, 30% from northern communities and 70% from southern communities. Mobilization from the south is \$85.45/person days on site, and from the north \$75/person-days on site (Ref 1).	person-days	252	20NWSS	\$75.00	\$18,900
Mobilization of Workers Required for Stabilization Period (from southern communities)	Assume two rotations per worker, 30% from northern communities and 70% from southern communities. Mobilization from the south is \$85.45/person days on site, and from the north \$75/person-days on site (Ref 1).	person-days	588	20SWSS	\$85.45	\$50,245
Camp accommodations- stabilization period	15 workers for 56 days	person-days	840	20WACSS	\$225.00	\$189,000
Camp accommodations for caretakers	36 month duration full time	person-days	3,240	20WACSS	\$225.00	\$729,000
Equipment - site stabilization	Assume 1 dozer, 56 days, 10 hr/day	hr	560	20BES	\$125.00	\$70,000
misc. supplies		allow		accmh	0	\$0
SNP/AEMP water sampling & reporting		each	3	15MCWL	\$30,000.00	\$90,000
geotechnical assessment		each	3	15GTS	\$20,000.00	\$60,000
environmental assessment	Assumes spending 1st year budget for this type of activity for interim care	each	1	RPTH	\$20,000.00	\$20,000
60 Month Interim C&M Cost						\$3,423,145
Number of years of ICM		years	3		Total	\$3,423,145

1 Post-Closure Monitoring & Maintenance:

ACTIVITY/MATERIAL	Notes	Units	Quantity	Cost Code	Unit Cost	Cost
MONITORING & INSPECTIONS						
Annual geotechnical inspection	Assume 2 geotech inspections are specified at year 4 and 8 (Ref 2, pg 81).	each	2	15GTS	\$20,000.00	\$40,000
	2019 estimate (See section 3.3.2.6 of 2019 Marginal Estimate)	LS	1	#N/A	\$200,000.00	\$200,000
Survey inspection		each		#N/A	\$0.00	\$0
Regulatory costs*	Annual reporting over 8 years. Unit rate from RECLAIM.	each	8	RPTL	\$10,000.00	\$80,000
	Annual reporting over 8 years. Unit rate from RECLAIM.	each	16	15MCWL	\$30,000.00	\$480,000
Site water monitoring (AEMP and SNP)		each		#N/A	\$0.00	\$0
- Active closure and flooding		each		#N/A	\$0.00	\$0
- Post pit flooding		each		#N/A	\$0.00	\$0
	Assume 3 sampling events specified at year 2, year 4 and year 7 (Ref 2, pg 81). Unit rate from RECLAIM.	each	3	RPTH	\$20,000.00	\$60,000
Air Quality Monitoring Program (AQMP)		LS	1	#N/A	\$210,000.00	\$210,000
	2019 estimate (See section 3.3.2.6 of 2019 Marginal Estimate)	LS	1	#N/A	\$210,000.00	\$210,000
	Assume 2 sampling events specified at year 5 and year 7 (Ref 1, pg 81). Unit rate from RECLAIM.	each	2	RPTH	\$20,000.00	\$40,000
Wildlife Effects Monitoring Program (WEMP)		each	0	#N/A	\$40,625.00	\$0
	2019 Marginal. Assume sampling events specified year 1 to 5.	each		#N/A	\$0.00	\$0
Vegetation Monitoring		each		#N/A	\$0.00	\$0
	Assume carried once (1x) during closure/post closure period year 4; at Mine site, Tote Road and Milne Port (Ref 2, pg 81). Unit rate from RECLAIM.		3	RPTH	\$20,000.00	\$60,000
Project Environmental Assessment		LS	1	#N/A	\$240,000.00	\$240,000
	2019 estimate (See section 3.3.2.6 of 2019 Marginal Estimate)	LS	1	#N/A	\$200,000.00	\$200,000
Short Term Temporary Care and Maintenance Program		LS	1	#N/A	\$220,000.00	\$220,000
Permitting		LS	1	#N/A	\$320,000.00	\$320,000
Socio-economic Reporting		LS	1	#N/A	\$450,000.00	\$450,000
Aquatic Monitoring Program		LS	1	#N/A	\$285,000.00	\$285,000
Environmental Effects Monitoring Program		LS	1	#N/A	\$1,000,000.00	\$1,000,000
Post-Closure Fauna and Flora Monitoring, Terrestrial Program		LS	1	#N/A	\$120,000.00	\$120,000
Marine Monitoring		LS	1	#N/A	\$185,000.00	\$185,000
Safety Compliance Inspection		LS	1	#N/A		
COVER MAINTENANCE						
Maintenance Allowance	According to the PDW closure plan, maintenance costs are estimated at \$100,000 per year (Ref 1, pg 103). This allowance expected to cover all maintenance activities at the sites.	allow	8	15MCAL	\$100,000.00	\$800,000
SPILLWAY MAINTENANCE						
CWTS MAINTENANCE						
POST-CLOSURE WATER TREATMENT						
Water Treatment - refer to 2024 Marginal Increase; water treatment sheet			3	WT tab	\$0.00	\$0

Total**\$4,990,000**

*Regulatory costs - annual reporting, management plans, progress reports etc.

1 Mobilization/Demobilization:

ACTIVITY/MATERIAL	Notes	Units	Quantity	Cost Code	Unit Cost	Cost
MOBILIZE HEAVY EQUIPMENT						
MOBILIZE MISC. EQUIPMENT						
	2018 to 2019: Crushing Module	m3	21,815	EBS	103.02	\$2,247,381
	2018 to 2019: Rail Construction Materials	m3	33,346	EBS	103.02	\$3,435,305
Mobilization and Demobilization of Phase 2 Equipment and Materials Required for Reclamation (2019)	2018 to 2019: Car Dumper Module	m3	24,756	EBS	103.02	\$2,550,363
	2018 to 2019 BHM Conveyors	m3	49,868	EBS	103.02	\$5,137,401
	2018 to 2019: Screening Module	m3	33,278	EBS	103.02	\$3,428,300
	2019: Shiploader Module	m3	81,400	EBS	103.02	\$8,385,828
	2021-D: Shiploader Module	m3	-81,400	EBS	103.02	(\$8,385,828)
Mobilization and Demobilization of Equipment and Materials Required for Reclamation (2019)	2019 estimate (Demob. Of hazardous waste materials associated with the Water Treatment Plant at the WRF)	LS	1		\$13,300	\$13,300
	Sea Containers	LS	1		\$714,000	\$714,000
Mobilization and Demobilization of Equipment and Materials by Sealift	2020 Revised Workplan	LS	1	EBS	\$86,000	\$86,000
	2021 Workplan	LS	1	EBS	\$136,000	\$136,000
Mobilization and Demobilization of Equipment and Materials for 2017 Work Plan addendum	Assumed 10% of marginal 2017 Work Plan Addendum Direct costs(minus Soil and Water management and ICM components) i.e., \$5,554,000 from BIMC 2018 Marginal Summary Worksheet.	LS	1		\$555,400	\$555,400
Mobilization and Demobilization of Equipment and Materials for 2018 Work Plan	Assumed 10% of marginal 2018 Work Plan Direct costs(minus Soil and Water management and ICM components) i.e., \$2,600,700 from BIMC 2018 Marginal Summary Worksheet.	LS	1		\$260,070	\$260,070
Off-site Disposal of Waste	Ref 1 pg 59 Cost to remove additional 49 bed spaces delivered to site in 2017 Work Plan.	m3	5500	15ODS	\$358	\$1,969,000
Consumables (2017 Work Plan marginal increase)	2017 Work Plan addendum (table 3-7) increases this to a 800 person and 50 person camp structures at the Mine Site and a 380 person camp at Milne Port Add 1230	Ea	1279	15CONS	\$701	\$896,323
Consumables	Cost to remove consumables delivered to site in 2015 (lubricants, grease, detergents, boosters, EZ Dets, dry goods, food, household supplies, etc.) (2015 Security Assessment, pg 18).	Ea	550	15CONS	\$701	\$385,440
Truck tires		allow		#N/A	\$0	\$0
Other	Demobilization Calcium Chloride	Ea	1	EBS	\$3,668,000	\$3,668,000
Mobile Light Equipment	2020 Revised Workplan: -Frost Fighter Heater	Ea	-6	20MOLS	\$729	(\$4,375)
3rd Party Heavy Mobile Equipment	2020 Arbitration Outcome	each	188		\$15,965	\$3,001,332
3rd Party Medium Mobile Equipment	2020 Arbitration Outcome	each	156		\$8,203	\$1,279,617
3rd Party Light Mobile Equipment	2020 Arbitration Outcome	each	183		\$2,786	\$509,836
Demobilization of 3rd Party Equipment	2020 Arbitration Outcome	LS	1	EBS	\$62,000	\$62,000
Mobilization and Demobilization of Equipment and Materials by Sealift	2022 Workplan	LS		1 EBS	\$364,159	\$364,159
MOBILIZE CAMP						
MOBILIZE WORKERS						
	2020 Revised Workplan	LS	1	EBS	\$42,000	\$42,000
Mobilization of Workers Required for Reclamation	2020 Arbitration Outcome	LS	1	EBS	\$28,000	\$28,000
	2021 Workplan	LS	1		\$64,000	\$64,000
Mobilization of Workers Required for Reclamation (from northern communities, 2019 Work Plan)	2019 estimate (See section 3.3.2.3 of 2019 Marginal Estimate)	person-days	1594	20NWS	75	\$119,550
Mobilization of Workers Required for Reclamation (from southern communities, 2019 Work Plan)	2019 estimate (See section 3.3.2.3 of 2019 Marginal Estimate)	person-days	3719	20SWS	85.45	\$317,789

1 Mobilization/Demobilization:

ACTIVITY/MATERIAL	Notes	Units	Quantity	Cost Code	Unit Cost	Cost
Mobilization of Workers Required for Reclamation (from northern communities, 2018 Work Plan)	Person-hours required to complete direct cost reclamation activities (10-h person-days) (pg 13 of Marginal Estimate).	person-days	957	20NWS	75	\$71,775
Mobilization of Workers Required for Reclamation (from southern communities, 2018 Work Plan)	Person-hours required to complete direct cost reclamation activities (10-h person-days) (pg 13 of Marginal Estimate).	person-days	2233	20SWS	85.45	\$190,810
Mobilization of Workers Required for Reclamation (from northern communities, 2017 Work Plan Addendum)	Person-hours required to complete direct cost reclamation activities (10-h person-days) (pg 63, Ref 1).	person-days	644	20NWS	75	\$48,300
Mobilization of Workers Required for Reclamation (from southern communities, 2017 Work Plan Addendum)	Person-hours required to complete direct cost reclamation activities (10-h person-days) (pg 63, Ref 1).	person-days	1502	20SWS	85.45	\$128,346
Mobilization of Workers Required for Reclamation (from northern communities, 2017 Work Plan)	Person-hours required to complete direct cost reclamation activities (10-h person-days) (pg 63, Ref 1).	person-days	155	20NWS	75	\$11,625
Mobilization of Workers Required for Reclamation (from southern communities, 2017 Work Plan)	Person-hours required to complete direct cost reclamation activities (10-h person-days) (pg 63, Ref 1).	person-days	362	20SWS	85.45	\$30,933
Mobilization of Workers Required for Reclamation (from northern communities, 2016 Work Plan)	Person-hours required to complete direct cost reclamation activities (10-h person-days) (pg 63, Ref 1).	person-days	937	20NWS	75	\$70,275
Mobilization of Workers Required for Reclamation (from southern communities, 2016 Work Plan)	Person-hours required to complete direct cost reclamation activities (10-h person-days) (pg 63, Ref 1).	person-days	2185	20SWS	85.45	\$186,708
Mobilization of Workers Required for Reclamation (2014 Work Plan)	Person-hours required to complete direct cost reclamation activities (10-h person-days) (pg 63, Ref 1). Based on a blended unit rate of \$82.315, which assumes 70% of hires from southern communities at a rate of \$85.45/ person-day, and 30% from northern communities at \$75/ person-day.	man hours	7921		90	\$712,890
Mobilization of Workers Required for Reclamation (2015 Work Plan)	Person-hours required to complete direct cost reclamation activities (10-h person-days) (pg 63, Ref 1). Based on a blended unit rate of \$82.315, which assumes 70% of hires from southern communities at a rate of \$85.45/ person-day, and 30% from northern communities at \$75/ person-day.	each	559		90	\$50,310
Mobilization of Workers Required for Reclamation (2015 A Work Plan)	Person-hours required to complete direct cost reclamation activities (10-h person-days) (pg 63, Ref 1). Based on a blended unit rate of \$82.315, which assumes 70% of hires from southern communities at a rate of \$85.45/ person-day, and 30% from northern communities at \$75/ person-day.	each	207		90	\$18,630
Mobilization of Workers Required for Reclamation	2022 Workplan	LS		1 EBS	\$212,226	\$212,226
WORKER ACCOMODATIONS						
	2019 estimate (See section 3.3.2.4 of 2019 Marginal Estimate)	person-days	16,498	15WACS	225	\$3,712,050
Worker Accommodation & Camp Operation	2020 Revised Workplan	LS	1	EBS	115000	\$115,000
	2020 Arbitration Outcome	LS	1	EBS	76000	\$76,000
	2021 Work Plan	LS	1		175000	\$175,000

1 Mobilization/Demobilization:

ACTIVITY/MATERIAL	Notes	Units	Quantity	Cost Code	Unit Cost	Cost
Worker Accommodation & Camp Operation	For the Post-Closure Monitoring and Reporting System (from 2016 Work Plan)	person-days	216	15WACS	225	\$48,600
Worker Accommodation & Camp Operation (2017 Work Plan)	For marginal reclamation activities (517 person-days) associated with 2017 Work Plan. Includes maintenance, catering,, housekeeping & fuel costs.	person-days	517	15WACS	225	\$116,325
Worker Accommodation & Camp Operation (2018 Work Plan)	For marginal reclamation activities (3190 person-days) associated with 2018 Work Plan (Page 13 of Marginal Estimate). Includes maintenance, catering,, housekeeping & fuel costs.	person-days	3,190	15WACS	225.5	\$719,345
Worker Accommodation & Camp Operation (2017 Work Plan addendum)	For marginal reclamation activities (2145 person-days) associated with 2017 Work Plan addendum. Includes maintenance, catering,, housekeeping & fuel costs.	person-days	2,145	15WACS	225.5	\$483,698
Long term reclamation activities (eg pump flooding)		manmonths				
Worker Accommodation & Camp Operation	2022 Workplan	LS	1	EBS	\$581,389	\$581,389
MOBILIZE FUEL						
Fuel Required for Reclamation	2020 Arbitration Outcome	litre	6,172,000	20MF1S	0.4	\$2,468,800
WINTER ROAD						
DEMOLITIZE HEAVY EQUIPMENT (includes disassembly, demob as well as worker accommodations and mob/demob)						
Crushing Module	Table 8-2 of 2018 Work Plan Table 3-6 of 2018 Marginal Closure Cost Report	lot	1		\$1,500,000	
Screening Module	BIMC allocated \$7.1M to account for the mobilization of bulk material handling modules to Milne Port in 2018. This cost allocation is based on the assumption the bulk material handling modules will be demobilized from site in the event of unforeseen closure at a cost of 10% of capital costs.	lot	1		\$1,400,000	
Car Dumper Module		lot	1		\$2,200,000	
BMH Conveyors		lot	1		\$1,500,000	
Rail Construction Materials	None of these line items are included in the 2022 EBS.	lot	1		\$500,000	
Mobile and Demobilization Heavy Equipment	2021-R: Heavy 3rd Party Equipment Demob	ea	-6	EBS	\$15,964.53	(\$95,787)
	2021-D: Heavy 3rd Party Equipment Demob	ea	-30	EBS	\$15,964.53	(\$478,936)
	2021 Workplan	ea	5	EBS	\$8,202.67	\$41,013
Mobile and Demobilization Medium Equipment	2021-R: Medium 3rd Party Equipment Demob	ea	-17	EBS	\$8,202.67	(\$139,445)
	2021-D: Medium 3rd Party Equipment Demob	ea	-103	EBS	\$8,202.67	(\$844,875)
	2021 Workplan	ea	13	EBS	\$2,785.99	\$36,218
Mobile and Demobilization Light Equipment	2021-R: Light 3rd Party Equipment Demob	ea	-26	EBS	\$2,785.99	(\$72,436)
	2021-D: Light 3rd Party Equipment Demob	ea	-47	EBS	\$2,785.99	(\$130,942)
	2022-R: Light 3rd Party Equipment Demob (2021 Equipment Audit)	each	-4	EBS	\$ 2,785.99	(\$11,144)
Medium 3rd Party Equipment	2022-R:Medium 3rd Party Equipment Demob (2021 Equipment Audit)	each	36	EBS	\$ 8,202.67	\$295,296
Heavy 3rd Party Equipment	2022-R: Heavy 3rd Party Equipment Demob (2021 Equipment Audit)	each	-157	EBS	\$ 15,964.53	(\$2,506,431)
DEMOLITIZE FUEL						
Demobilization of Existing Fuel	2020 Arbitration Outcome	litre	48,500,000	20MF1S	0.1	\$4,850,000
Total						\$42,437,756

1	Underground Mine Name					UG Mine # <u>1</u>			
	ACTIVITY/MATERIAL	Notes	Unit	Qty	Code	Unit Cost	Cost Land	Land Cost	Water Cost
	CONTROL ACCESS								
	REMOVE HAZARDOUS MATERIALS								
	INSTALL BULKHEADS								
	FLOOD MINE								
	INSTALL GROUNDWATER COLLECTION SYSTEM								
	SPECIALIZED ITEMS								
	Total						\$0	\$0	\$0
	% of Total							0%	0%

Tailings Impoundment Name:				Pond # 1					
ACTIVITY/MATERIAL	Notes	Units	Quantity	Cost Code	Unit Cost	% Cost	Land	Land Cost	Water Cost
CONTROL ACCESS									
STABILIZE EMBANKMENT(S)									
COVER TAILINGS									
BURY PAG ROCK									
STABILIZE DECANT SYSTEM									
REMOVE TAILINGS DISCHARGE									
CONSTRUCT DIVERSION DITCHES									
FLOOD TAILINGS									
UPGRADE SPILLWAY									
CONSTRUCT SEEPAGE COLLECTION POND									
INSTALL GROUNDWATER COLLECTION SYSTEM									
SPECIALIZED ITEMS									
TREAT SEEPAGE - see "Water Management" and "Water Treatment"									
TREAT SUPERNATANT									
				Annual treatment costs		\$0			
Number of years of treatment		years							
				Total treatment costs		\$0			
Total						\$0		\$0	\$0
% of Total							0%		0%

* for construction of passive treatment system refer to "Water Management"

1 Post Closure Water Treatment - Identified as long term/post-closure in 'Instructions' worksheet

ACTIVITY/MATERIAL	Notes	Units	Quantity	Cost Code	Unit Cost	Cost
ADDITION OF REAGENTS TO WTP						
LABOUR AND SUPPLIES						
WATER MANAGEMENT						
WTP WATER SAMPLING AND ANALYSES						
SITE ACCESS						
ANNUAL ADJUSTMENT						
Short Term C&M, Closure & Post-Closure Monitoring and reporting - 2021 Increase for Water Treatment (In 2022 EBS, Missing from 2021 EBS)		allow	1	AE	\$70,800.00	\$70,800
Short Term C&M, Closure & Post-Closure Monitoring and reporting - 2022 Increase for Water Treatment		LS	1	#N/A	\$7,307.00	\$7,307
2024 Revision - Updated water treatment costs captured in 2024 Marginal RECLAIM. Costs override these previous securities		LS	-1		\$78,107.00	(\$78,107)
Annual water treatment costs						\$0
Number of years of water treatment		years	0			
Total						\$0

Unit Cost Table (for refining unit costs see "Estimator" worksheet)

Filter by unit

ITEM	Detail	COST CODE	UNITS	LOW \$	HIGH \$	SPECIFIED \$
SLI Evaluated Unit Rate (\$/unit) (2019)						
	Grade and Contour	20GC	m2			\$1.49
	Grade and Contour With Liner	20GCL	m2			\$4.12
	Grade and Contour Disturbed Area	20GCD	m2			
	Open Pit Development - Grade and Contour	22OP	m3			\$12.66
	Fill Application	20PF	m2			\$38.83
Cost for On-Site Disposal of Equipment:						
	Light Mobile Equipment	20MOL	Ea			729.2
	Medium Mobile Equipment	20MOM	Ea			1,162.5
	Heavy Mobile Equipment	20MOH	Ea			2,075.0
	Other mobile equipment (reclaim conveyor)	20MOR	Ea			
	Light mechanical equipment - Decommission	20LME	Ea			1,583.8
	Medium mechanical equipment - Decommission	20MME	Ea			3,392.5
	Heavy mechanical equipment - Decommission	20MEH	Ea			32,950.0
	Light Tanks	20TL	Ea			1,710.4
	Medium Tanks	20MT	Ea			5,900.0
	Light Diesel Tanks	20LIDT	Ea			2,950.0
	Medium Diesel Tanks	20MDT	Ea			12,982.5
	Large Diesel Tanks	20LDT	Ea			85,157.5
	Largest Diesel Tanks	20XLDT	Ea			137,227.5
	Misc Items (Minor)	20MEI	Ea			
	Fuel tanks - Medium Mobile Diesel Tank	20MMFT	Ea			\$8,381.25
Removal of Contaminated Buildings						
	fold away	20RCBF	m2			\$114.04
	ISO Shipping Container	20RCBI	m2			\$23.82
	modular	20RCBM	m2			\$114.89
	soft walled	20RCBS	m2			\$128.86
		20RCBT	m2			
Removal of Buildings						
	fold away	20RBF	m2			\$33.34
	modular	20RBM	m2			\$47.64
	ISO Shipping Container	20RBI	m2			\$23.82
	soft walled	20RBS	m2			\$38.11
	water and wastewater treatment facility	20WWT	Ea			\$8,775.00
Foundations						
	Precast concrete	20FC	m2			\$30.86
	Slab on grade	20FS	m2			\$30.00
	Timber cribbing	20TC	m2			\$16.67
Reclaim roads						
	Remove bridges	20BR	Ea			\$161,904.76
Specialized Items						
	Power distribution - electrical cable	20EC	m			21.3
	Electrical Cable	20EC	m			21.3
	Incinerator	20FI	Ea			7,925.0
	Potable Water	20PW	Ea			7,925.0
Blended Labour and Equip Rates (2018)						
	Blended labour rate	20BL	hr			\$75.00
	Blended equipment rate	20BE	hr			\$125.00
		20NWS	hr			\$75.00
		20SWS	hr			\$85.45
		20WACS	person-days			\$225.00
Water management						
	Remove pipes	20RP	m			\$53.13

APPENDIX B

AtkinsRéalis 2024 Marginal Estimate
RECLAIM MODEL

CAPITAL COSTS	COMPONENT NAME	COST	LAND LIABILITY	WATER LIABILITY	IOL LIABILITY	CROWN LIABILITY
OPEN PIT	Mary River Mine Pit	\$0	\$0	\$0	\$0	\$0
UNDERGROUND MINE		\$0	\$0	\$0	\$0	\$0
TAILINGS FACILITY		\$0	\$0	\$0	\$0	\$0
ROCK PILE	Mine Site Waste Rock Pile	\$28,818,919	\$28,818,919	\$0	\$28,818,919	\$0
BUILDINGS AND EQUIPMENT	Mine Site	\$1,844,482	\$1,319,458	\$525,024	\$1,844,482	\$0
	Mine Port	\$0	\$0	\$0	\$0	\$0
	Tote Road	\$71,026	\$71,026	\$0	\$66,258	\$4,768
	Project Wide	\$224,785	\$224,785	\$0	\$224,785	\$0
CHEMICALS AND CONTAMINATED SOIL MANAGEMENT		\$9,605	\$1,979	\$7,626	\$9,605	\$0
SURFACE AND GROUNDWATER MANAGEMENT		\$0 -		\$0	\$0	\$0
INTERIM CARE AND MAINTENANCE		\$0 -		\$0	\$0	\$0
DIRECT CONSTRUCTION INDIRECT FIELD SUPPORT		\$349,875	\$273,237	\$76,638	\$349,038	\$837
	SUBTOTAL: Capital Costs	\$31,318,692	\$30,709,404	\$609,288	\$31,313,087	\$5,605
	PERCENT OF SUBTOTAL		98.1%	1.9%	99.98%	0.02%

INDIRECT COSTS		COST	LAND LIABILITY	WATER LIABILITY	IOL LIABILITY	CROWN LIABILITY
MOBILIZATION/DEMOBILIZATION INDIRECTS		\$214,015	\$162,296	\$51,718	\$213,454	\$561
POST-CLOSURE MONITORING AND MAINTENANCE (incl. KM 105 and		\$2,164,151	\$2,122,049	\$42,102	\$2,163,930	\$221
ENGINEERING	5.00%	\$1,565,935	\$1,535,470	\$30,464	\$1,565,654	\$280
PROJECT MANAGEMENT	3.75%	\$1,174,451	\$1,151,603	\$22,848	\$1,174,241	\$210
PROCUREMENT AND CONTRACT MANAGEMENT	1.25%	\$391,484	\$383,868	\$7,616	\$391,414	\$70
HEALTH AND SAFETY PLANS/MONITORING & QA/QC	0.00%	\$0	\$0	\$0	\$0	\$0
BONDING/INSURANCE	2.00%	\$626,374	\$614,188	\$12,186	\$626,262	\$112
	SUBTOTAL: Indirect Costs	\$6,136,409	\$5,969,474	\$166,935	\$6,134,955	\$1,454
SUBTOTAL COSTS (DIRECT + INDIRECT)		\$37,455,101	\$36,678,878	\$776,223	\$37,448,041	\$7,060
MARKET PRICE FACTOR ADJUSTMENT / INFLATION (2024)	0.00%	\$0	\$0	\$0	\$0	\$0
CONTINGENCY	20.00%	\$7,491,020	\$7,335,776	\$155,245	\$7,489,608	\$1,412
TOTAL COSTS		\$44,946,121	\$44,014,654	\$931,467	\$44,937,650	\$8,472

1	Open Pit Name:	Mary River Mine Pit			Pit # 1				
ACTIVITY/MATERIAL		Notes	Units	Quantity	Cost Code	Unit Cost	% Cost Land	Land Cost	Water Cost
CONTROL ACCESS									
STABILITY STUDY									
STABILIZE SLOPES									
COVER/CONTOUR SLOPES									
CONSTRUCT DIVERSION DITCHES									
CONSTRUCT SPILLWAY									
RECLAIM QUARRIES (the unit cost is inclusive of backfill, compaction and scarification with a dozer)									
GRADING AND CONTOURING SIGNIFICANTLY DISTURBED AREAS (the unit cost is inclusive of backfill, compaction and scarification with a dozer)									
FLOOD PIT-Captital									
FLOOD PIT-Annual Cost									
			Annual pumping costs						
Number of years of pump flooding			years						
			Total pumping costs					100%	\$0
			Total					\$0	\$0
			% of Total					0%	0%

Rock Pile Name:		Mine Site Waste Rock Pile							
Activity/Material	Notes	Units	Quantity ¹	Cost Code	Unit Cost ²	Cost % Land	Land Cost	Water Cost	
SPECIALIZED ITEMS									
COVER ROCK PILE	Based on 4 m thick Drill, Blast, Place and Compact	m3	1,596,616	24WRCS	\$18.05	\$28,818,919	100%	\$28,818,919	\$0
					Total	\$28,818,919		\$28,818,919	\$0
					% of Total		100%		0%

1. Volume based on 4 m cover thickness

2. Waste rock facility area based on current (2024) facility dimensions supplied by BIMC (399,154 m2)

ARD/ML seepage treatment becomes post-closure water treatment cost (increased to 5 years as per MEMDR and recogized close mine status requirements)

1 Chemicals/Soil Area Name:

Note: The procedures, equipment and packaging for clean up and removal of chemicals or contaminated soils are highly dependent on the nature of the chemicals and their existing state of containment. Government guidelines should be consulted on an individual chemical basis. Any estimate made here should be considered very rough unless specific evaluations have been conducted.

ACTIVITY/MATERIAL	Workplan ID	Notes	Land Type	Workplan Item #	Discipline Code	Units	Quantity	BIMC Unit Rate	Cost	%IOL	IOL Liability	%Crown	Crown % Liability	Land	Land Cost	Water Cost
HAZARDOUS MATERIALS AUDIT																
BUILDING DECONTAMINATION & CONSOLIDATION OF HAZARDOUS MATERIALS																
Decontaminate bulk fuel storage	2023-3	15,000 L Jet A Tank and Berm - Fuel Tank W: 3.0m Dia x 2.0m H and Collect Contaminated Liquid for Treatment / Disposal	IOL	022	P	LOT	1	\$5,640.00	\$5,640	100%	\$5,640.00	0%	\$0.00	0%	\$0	\$5,640
HAZARDOUS MATERIALS REMOVAL																
Fuel	2023-3	15,000 L Jet A Tank and Berm - Empty Fuel from Fuel Tank W: 3.0m Dia x 2.0m H Into Fuel Tankers by Hose - Costs to Empty Fuel Included in Indirect Costs	IOL	020	P	litre	7500	\$0.00	\$0	100%	\$0.00	0%	\$0.00	0%	\$0	\$0
Fuel Demobilization	2023-3	15,000 L Jet A Tank and Berm - Freight from Mine Site to Milne Port for Demobilized Fuel	IOL	021	P	Litres	7500	0.16	\$1,165	100%	\$1,165.20	0%	\$0.00	0%	\$0	\$1,165
Fuel	2023/2024	CON.01 - Surface Infrastructure Demolition - Contractor Supplied Fuel	IOL	135		litre	1400	\$2.00	\$2,800	100%	\$2,800.00	0%	\$0.00	71%	\$1,979	\$821
HAZARDOUS MATERIALS																
CONTAMINATED SOILS																
CONTAMINATED SOIL REMOVAL																
CONTAMINATED SOIL VERY LOW PERMEABILITY COVER																
OTHER																
Total									\$9,605		\$9,605		\$0		\$1,979	\$7,626
% of Total											100%		0%		21%	79%

Building / Equip Name:			Mine Site													
ACTIVITY/MATERIAL	Workplan ID	Notes	Land Type	Workplan Item #	Discipline Code	Units	Quantity	BIM Unit Rate	Cost	%IOL	IOL Liability	% Crown	Crown Liability	% Land	Land Cost	Water Cost
DISPOSE MOBILE EQUIPMENT - Unit Costs includes disassembly and decontamination required for on-site disposal, load and transport to landfill																
DISPOSE MECHANICAL EQUIPMENT - Unit Costs includes disassembly and decontamination required for on-site disposal, load and transport to landfill																
DISPOSE BUILDNGS - Unit Costs includes demolition, load, haul, dump, demolished material to on-site landfill																
Fencing	2024-1	Fencing at Mary Rive Aerodrome	IOL	007	M	m	353.3	\$55.94	\$19,765	100%	\$19,765	0%	\$0	100%	\$19,765	\$0
	2024-1	Fencing at Mary Rive Aerodrome	IOL	009	M	m	435.1	\$55.95	\$24,341	100%	\$24,341	0%	\$0	100%	\$24,341	\$0
	2024-1	Loading, hauling, backfilling, and spreading demolished materials	IOL	008	F	m3	35.3	\$12.08	\$427	100%	\$427	0%	\$0	100%	\$427	\$0
	2024-1	Loading, hauling, backfilling, and spreading demolished materials	IOL	010	F	m3	43.5	\$12.17	\$530	100%	\$530	0%	\$0	100%	\$530	\$0
Tank/ Vessel Demolition	2023-3	15,000 L Jet A Tank and Berm - Haul, Dump, Demolished Materials at Mine Site Landfill	IOL	024	F	m3	24	\$43.89	\$1,053	100%	\$1,053	0%	\$0	0%	\$0	\$1,053
REMOVE BUILDINGS - Unit Costs include disassembling, removing or securing all items and load and transport																
Remove Gabion Baskets	2024 WP	KM105 Dam - Gabion Basket Removal	IOL	-	-	LS	1	\$34,488	\$34,488	100%	\$34,488	0%	\$0	0%	\$0	\$34,488
Remove Water Treatment Plant	2024 WP	KM105 Desimentation pond - Water Treatment Plan Installed in 2023	IOL	-	-	LS	1	\$69,950	\$69,950	100%	\$69,950	0%	\$0	0%	\$0	\$69,950
REMOVE CONTAMNATED BUILDINGS - Unit Costs include disassembling, removing or securing all items, decontamination and load and transport																
Disassemble Buildings/ Equipment	2023-3	15,000 L Jet A Tank and Berm - Cut Fuel Tank into Manageable Pieces and Load with Crane	IOL	023	P	each	3	\$3,825.80	\$11,477	100%	\$11,477	0%	\$0	0%	\$0	\$11,477
BREAK FOUNDATIONS EXCAVATE, HAUL, AND BACKFILL																
Excavate Soils	2023-3	15,000 L Jet A Tank and Berm - Excavate, Load, Haul, and Stockpile Assumed Clean Soil - 150mm Type-7, 350mm Type-5, 100mm Crusher Fines, 100mm Crusher Fines, 100mm Type-5, 150mm (Varies) Type-8 - Includes Dyke and Tank Pads	IOL	025	A	m3	81	\$6.02	\$488	100%	\$488	0%	\$0	0%	\$0	\$488
Fill Sedimentation Pond	2024-2	QMR2 Quarry Sedimentation Pond - Haul, Dump, and Place Clean Backfill Material - Assume 2.5m Depth Local Common Fill	IOL	046	E	m3	13273.61123	\$23.56	\$312,722	100%	\$312,722	0%	\$0	0%	\$0	\$312,722
GRADE AND CONTOUR, GENERAL - Unit costs are inclusive of backfill, compaction and sacriification with a dozer																
Grading and Recontouring - Facility	2024-4	Additional Snow Stockpile Area - Grade and Recontour Footprint	IOL	014	B	m2	23,821	\$1.71	\$40,708	100%	\$40,708	0%	\$0	100%	\$40,708	\$0
	2024-4	Additional Snow Stockpile Area - Grade and Recontour Footprint - Part of MS-GD-007 Legacy Security	IOL	015	B	m2	1,211	\$0.00	\$0	100%	\$0	0%	\$0	100%	\$0	\$0
	2023-2	Expansion of Km 106 Stockpile Pad for Water Truck - Grade and Recontour Footprint - Part of Legacy Security	IOL	016	B	m2	1,351	\$0.00	\$0	100%	\$0	0%	\$0	100%	\$0	\$0
	2023-2	Expansion of Km 106 Stockpile Pad for Water Truck - Grade and Recontour Footprint - Part of Legacy Security	IOL	017	B	m2	6,636	\$0.00	\$0	100%	\$0	0%	\$0	100%	\$0	\$0
	2023-2	Expansion of Km 106 Stockpile Pad for Water Truck - Grade and Recontour Footprint	IOL	018	B	m2	2,015	\$1.71	\$3,443	100%	\$3,443	0%	\$0	100%	\$3,443	\$0
	2023-2	Expansion of Km 106 Stockpile Pad for Water Truck - Grade and Recontour Footprint - Part of Legacy Security	IOL	019	B	m2	541	\$0.00	\$0	100%	\$0	0%	\$0	100%	\$0	\$0
	2023-3	15,000 L Jet A Tank and Berm - Grade and Recontour Footprint	IOL	028	B	m2	180	\$1.70	\$306	100%	\$306	0%	\$0	0%	\$0	\$306
Grading and Recontouring - Laydown	2024-S5	Laydown Area at th Mine Site for Temporary Storage of Equipment and Materials - Grade and Recontour	IOL	029	B	m2	189683.9057	\$1.10	\$207,899	100%	\$207,899	0%	\$0	100%	\$207,899	\$0
	2024-S5	Laydown Area at th Mine Site for Temporary Storage of Equipment and Materials - Grade and Recontour - Part of MS-GD-003 Legacy Security	IOL	030	B	m2	7884.125825	\$0.00	\$0	100%	\$0	0%	\$0	100%	\$0	\$0
	2024-S5	Laydown Area at th Mine Site for Temporary Storage of Equipment and Materials - Grade and Recontour - Part of MS-LAY-003 Legacy Security	IOL	031	B	m2	3421.441412	\$0.00	\$0	100%	\$0	0%	\$0	100%	\$0	\$0
	2024-3A	Leveling and Grading Within Footprint of Future Waste Rock Facility (WRF) Expansion to Support Geotechnical Investigation Work - Grade and Recontour - Part of MS-GD-007 Legacy Security	IOL	038	B	m2	9404.9	\$0.00	\$0	100%	\$0	0%	\$0	100%	\$0	\$0
	2024-3A	Leveling and Grading Within Footprint of Future Waste Rock Facility (WRF) Expansion to Support Geotechnical Investigation Work - Grade and Recontour - Part of MS-GD-007 Legacy Security	IOL	039	B	m2	27050	\$0.00	\$0	100%	\$0	0%	\$0	100%	\$0	\$0
	2024-3A	Leveling and Grading Within Footprint of Future Waste Rock Facility (WRF) Expansion to Support Geotechnical Investigation Work - Grade and Recontour	IOL	040	B	m2	120,234.1	\$1.71	\$205,473	100%	\$205,473	0%	\$0	100%	\$205,473	\$0
	2024-3A	Leveling and Grading Within Footprint of Future Waste Rock Facility (WRF) Expansion to Support Geotechnical Investigation Work - Grade and Recontour	IOL	041	B	m2	329,045.3	\$1.71	\$562,309	100%	\$562,309	0%	\$0	100%	\$562,309	\$0
Grading and Recontouring - Water Management	2024-2	QMR2 Quarry Sedimentation Pond - Grade and Recontour Footprint - Part of MS-QY-001 Legacy Security	IOL	047	B	m2	5309.4	\$0.00	\$0	100%	\$0	0%	\$0	0%	\$0	\$0
Grade and Recontouring - KM105 Dam and Sedimentation Pond	2024 WP	2023 Work Plan Security (Bulk Rockfill, Excavation, Stockpile and Placement, and Diversion Berm/Ditch		2024 WP	-	LS	1.0	\$254,564.00	\$254,564	100%	\$254,564	0%	\$0	100%	\$254,564	\$0

Building / Equip Name:		Mine Site														
ACTIVITY/MATERIAL	Workplan ID	Notes	Land Type	Workplan Item #	Discipline Code	Units	Quantity	BIM Unit Rate	Cost	%IOL	IOL Liability	%Crown	Crown Liability	% Land	Land Cost	Water Cost
GRADE AND CONTOUR, WITH LINER - Unit costs include liner removal and disposal, backfill, compaction and sacrfication with a dozer																
Grade and Recontouring with Liner	2023-3	15,000 L Jet A Tank and Berm - Clean and Remove Liner 1 - Geotextile, Dyke Liner, and Geotextile	IOL	026	B	m2	180	\$4.03	\$726	100%	\$726	0%	\$0	0%	\$0	\$726
	2023-3	15,000 L Jet A Tank and Berm - Clean and Remove Liner 2 - Geotextile	IOL	027	B	m2	180	\$2.04	\$367	100%	\$367	0%	\$0	0%	\$0	\$367
Grading and Recontouring - Water Management	2024-2	QMR2 Quarry Sedimentation Pond - Clean and Remove Liner	IOL	045	B	m2	5,309	\$4.05	\$21,526	100%	\$21,526	0%	\$0	0%	\$0	\$21,526
Liner Removal - KM105 Dam and Sedimentation Pond	2024 WP	KM105 Dam - Liner Removal	IOL	-	-	LS	1	\$71,920.00	\$71,920	100%	\$71,920	0%	\$0	0%	\$0	\$71,920
LANDFILL FOR DEMOLITION WASTE																
SPECIALIZED ITEMS																
										IOL		Crown		Land		Water
Total									\$1,844,482	\$1,844,482		\$0		\$1,319,458		\$525,024
% of Total										100%		0%		72%		28%

Building / Equip Name:		Milne Port		Bldg / Equip #: 2								
ACTIVITY/MATERIAL	Notes	Units	Quantity	Cost Code	Unit Cost	Cost	%IOL	IOL Liability	%Crown	Crown % Liability Land	Land Cost	Water Cost
DISPOSE MOBILE EQUIPMENT - Unit Costs includes disassembly and decontamination required for on-site disposal, load and transport to landfill												
DISPOSE MECHANICAL EQUIPMENT - Unit Costs includes disassembly and decontamination required for on-site disposal, load and transport to landfill												
REMOVE BUILDINGS - Unit Costs include disassembling, removing or securing all items and load and transport												
REMOVE CONTAMINATED BUILDINGS - Unit Costs include disassembling, removing or securing all items, decontamination and load and transport												
BREAK FOUNDATIONS												
GRADE AND CONTOUR, GENERAL - Unit costs are inclusive of backfill, compaction and sacrification with a dozer												
GRADE AND CONTOUR, WITH LINER - Unit costs include liner removal and disposal, backfill, compaction and sacrification with a dozer												
LANDFILL FOR DEMOLITION WASTE												
SPECIALIZED ITEMS												
							IOL		Crown		Land	
Total						\$0		\$0		\$0	\$0	\$0
% of Total								0%		0%	0%	0%

Building / Equip Name:			Tote Road																	
ACTIVITY/MATERIAL		Workplan ID		Notes		Land Type	Workplan Item #	Discipline Code	Units	Quantity	Cost Code	BIM Unit Rate	Cost	%IOL	IOL Liability	%Crown	Crown % Liability	Land	Land Cost	Water Cost
DISPOSE MOBILE EQUIPMENT - Unit Costs includes disassembly and decontamination required for on-site disposal, load and transport to landfill																				
DISPOSE MECHANICAL EQUIPMENT - Unit Costs includes disassembly and decontamination required for on-site disposal, load and transport to landfill																				
REMOVE BUILDINGS - Unit Costs include disassembling, removing or securing all items and load and transport																				
REMOVE CONTAMINATED BUILDINGS - Unit Costs include disassembling, removing or securing all items, decontamination and load and transport																				
BREAK FOUNDATIONS																				
GRADE AND CONTOUR, GENERAL - Unit costs are inclusive of backfill, compaction and sacrfication with a dozer																				
GRADE AND CONTOUR, WITH LINER - Unit costs include liner removal and disposal, backfill, compaction and sacrfication with a dozer																				
LANDFILL FOR DEMOLITION WASTE																				
RECLAIM ROADS																				
Remove/Replace Culverts	2023-4	Replacement of Culverts at Fish-bearing Streams Along the Milne Inlet Tote Road - Removal of Culverts at Legacy Security Credit for the Removal of Culverts at Fish-Bearing Streams Along the Milne Inlet Tote Road - IOL		IOL	052	G	m	1,119.0				\$99.50	\$111,336	100%	\$111,336	0%	\$0	100%	\$111,336	\$0
	2023-4	2013 ERP Design		IOL	053	G	each	46.0				-\$979.95	(\$45,078)	100%	(\$45,078)	0%	\$0	100%	(\$45,078)	\$0
	2023-4	Replacement of Culverts at Fish-bearing Streams Along the Milne Inlet Tote Road - Removal of Culverts at Legacy Security Credit for the Removal of Culverts at Fish-Bearing Streams Along the Milne Inlet Tote Road - Crown		Crown	054	G	m	107.0				\$99.51	\$10,648	0%	\$0	100%	\$10,648	100%	\$10,648	\$0
	2023-4	2013 ERP Design		Crown	055	G	each	6.0				-\$979.95	(\$5,880)	0%	\$0	100%	(\$5,880)	100%	(\$5,880)	\$0
SPECIALIZED ITEMS																				
												Total	\$71,026			\$66,258	\$4,768	\$4	\$71,026	\$0
												% of Total				93%	7%		100%	0%

Building / Equip Name:			Mine Site													
ACTIVITY/MATERIAL	Workplan ID	Notes	Land Type	Workplan Item #	Discipline Code	Units	Quantity	BIM Unit Rate	Cost	%IOL	IOL Liability	%Crown	Crown Liability	% Land	Land Cost	Water Cost
DISPOSE MOBILE EQUIPMENT - Unit Costs includes disassembly and decontamination required for on-site disposal, load and transport to landfill																
Mobile Equipment Removal	2024	Large Water Pump - Landfill	IOL	060	R	each	2	\$5,968.00	\$11,936	100%	\$11,936	0%	\$0	100%	\$11,936	\$0
	2024	Fuel Tanker - Backhauled Off-site	IOL	061	R	each	2	\$5,694.49	\$11,389	100%	\$11,389	0%	\$0	100%	\$11,389	\$0
	2024	15,000L Bulk Fuel Tank - Backhauled Off-site	IOL	062	R	each	2	\$3,202.49	\$6,405	100%	\$6,405	0%	\$0	100%	\$6,405	\$0
	2024	Mobile Stacker - Landfill	IOL	063	R	each	1	\$5,968.00	\$5,968	100%	\$5,968	0%	\$0	100%	\$5,968	\$0
DISPOSE MECHANICAL EQUIPMENT - Unit Costs includes disassembly and decontamination required for on-site disposal, load and transport to landfill																
REMOVE BUILDINGS - Unit Costs include disassembling, removing or securing all items and load and transport																
Sea Can Removal	2023	20' Containers - Load, Haul, and Ship Offsite - Milne Port	IOL	067	Q	each	45	\$1,443.02	\$64,936	100%	\$64,936	0%	\$0	100%	\$64,936	\$0
	2023	20' Containers - Load, Haul, Empty Contents into Landfill, Crush / Cut, and Dispose of in the Landfill - Mine Site	IOL	068	Q	each	67	\$1,220.00	\$81,740	100%	\$81,740	0%	\$0	100%	\$81,740	\$0
	2023	40' Containers - Load, Haul, and Ship Offsite - Milne Port	IOL	069	Q	each	3	\$2,326.91	\$6,981	100%	\$6,981	0%	\$0	100%	\$6,981	\$0
	2023	40' Containers - Load, Haul, Empty Contents into Landfill, Crush / Cut, and Dispose of in the Landfill - Mine Site	IOL	070	Q	each	7	\$1,830.00	\$12,810	100%	\$12,810	0%	\$0	100%	\$12,810	\$0
	2023	10' Container - Load, Haul, Empty Contents into Landfill, Crush / Cut, and Dispose of in the Landfill - Mammoet Equip for Unit # - Load, Haul, and Ship Offsite	IOL	071	Q	each	2	\$940.00	\$1,880	100%	\$1,880	0%	\$0	100%	\$1,880	\$0
	2023	20' Containers - Load, Haul, Empty Contents into Landfill, Crush / Cut, and Dispose of in the Landfill - Mine Site	IOL	072	Q	each	8	\$1,220.00	\$9,760	100%	\$9,760	0%	\$0	100%	\$9,760	\$0
	2023	40' Containers - Load, Haul, Empty Contents into Landfill, Crush / Cut, and Dispose of in the Landfill - Mine Site	IOL	073	Q	each	6	\$1,830.00	\$10,980	100%	\$10,980	0%	\$0	100%	\$10,980	\$0
REMOVE CONTAMINATED BUILDINGS - Unit Costs include disassembling, removing or securing all items, decontamination and load and transport																
BREAK FOUNDATIONS																
GRADE AND CONTOUR, GENERAL - Unit costs are inclusive of backfill, compaction and sacrfication with a dozer																
GRADE AND CONTOUR, WITH LINER - Unit costs include liner removal and disposal, backfill, compaction and sacrfication with a dozer																
LANDFILL FOR DEMOLITION WASTE																
SPECIALIZED ITEMS																
										IOL		Crown		Land		Water
Total									\$224,785		\$224,785		\$0		\$224,785	\$0
% of Total											100%		0%		100%	0%

Capital Expenditures and Short Term Water Treatment identified in 'Instructions' worksheet

ACTIVITY/MATERIAL	Notes	Units	Quantity	Cost Code	Unit Cost	Cost
BREACH DYKE EMBANKMENT						
STABILIZE SEDIMENT PONDS/WATER MANAGEMENT PONDS						
REDIRECT RUNOFF/CONSTRUCT DIVERSION DITCHES						
BREACH DITCHES						
DECOMISSION FRESH WATER SUPPLY						
WATER CONTROL IN RECLAMATION QUARRY						
REMOVE PIPELINES						
GROUNDWATER COLLECTION SYSTEM						
CONSTRUCT CONTAMINATED WATER STORAGE POND						
CONSTRUCT PASSIVE TREATMENT SYSTEM (e.g. Constructed Wetland)						
CONSTRUCT WATER TREATMENT PLANT						
					Total	\$0

For cost of long-term/post-closure water treatment see "WATER TREATMENT" Worksheet"

Interim Care and Maintenance											
ACTIVITY/MATERIAL	Workplan ID	Notes	Land Type	Workplan Item #	Discipline Code	Units	Quantity	Cost Code	Unit Cost BIM	Unit Rate	Cost
INTERIM CARE & MAINTENANCE											
Interim Care and Maintenance	2023/2024	Assume Ponds and Sludge and Contaminated Soils will Be Removed and Treated as Part of Care and Maintenance - Part of Legacy Security		080	V1	hour	0				\$0
Number of years of ICM						years	0		Total		\$0

Post-Closure Monitoring & Maintenance:

				Cost		
ACTIVITY/MATERIAL	Notes	Units	Quantity	Code	Unit Cost	Cost
MONITORING & INSPECTIONS						
COVER MAINTENANCE						
SPILLWAY MAINTENANCE						
CWTS MAINTENANCE						
POST-CLOSURE WATER TREATMENT						
WRF and KM 105 Water Treatment	<u>See water treatment tab</u>	Years	3	n/a	\$721,383.76	\$2,164,151
Subtotal, post-closure costs						\$2,164,151

Mobilization/Demobilization:

ACTIVITY/MATERIAL	Workplan ID	Notes	Workplan Item #	Discipline	Units	Quantity	BIM Unit	Cost	%IOL	IOL Liability	%Crown	Crown Liability	% Land	Land Cost	Water Cost
				Code			Rate								
MOBILIZE HEAVY EQUIPMENT															
MOBILIZE MISC. EQUIPMENT															
Construction Facilities	2023/2024	CON.01 - Surface Infrastructure Demolition Contractor - Generators	088	V3	Months	0.5	\$2,500	\$1,250	100.00%	\$1,250.00	0.00%	\$0.00	70.70%	\$884	\$366
	2023/2024	CON.01 - Surface Infrastructure Demolition Contractor - Temporary Barricades, Signage, Fencing etc.	089	V3	Months	0.5	\$5,000	\$2,500	100.00%	\$2,500.00	0.00%	\$0.00	70.70%	\$1,767	\$733
	2023/2024	CON.01 - Surface Infrastructure Demolition Contractor - Bins	090	V3	Months	0.5	\$5,000	\$2,500	99.71%	\$2,492.79	0.29%	\$7.21	79.61%	\$1,990	\$510
	2023/2024	CON.02 - Civil Reclamation Contractor - Site Trailers x3	091	V3	Months	1.5	\$2,700	\$4,050	99.71%	\$4,038.32	0.29%	\$11.68	79.61%	\$3,224	\$826
	2023/2024	CON.02 - Civil Reclamation Contractor - Lunchroom x3	092	V3	Months	1.5	\$2,500	\$3,750	99.71%	\$3,739.19	0.29%	\$10.81	79.61%	\$2,985	\$765
	2023/2024	CON.02 - Civil Reclamation Contractor - Wash Cars and Dry Facility x2	093	V3	Months	1	\$2,500	\$2,500	99.71%	\$2,492.79	0.29%	\$7.21	79.61%	\$1,990	\$510
	2023/2024	CON.02 - Civil Reclamation Contractor - Generators x4	094	V3	Months	2	\$2,775	\$5,550	99.71%	\$5,534.00	0.29%	\$16.00	79.61%	\$4,418	\$1,132
	2023/2024	CON.02 - Civil Reclamation Contractor - Temporary Barricades, Signage, Fencing etc.	095	V3	Months	0.5	\$2,500	\$1,250	99.71%	\$1,246.40	0.29%	\$3.60	79.61%	\$995	\$255
	2023/2024	CON.02 - Civil Reclamation Contractor - Bins	096	V3	Months	0.5	\$5,000	\$2,500	99.71%	\$2,492.79	0.29%	\$7.21	79.61%	\$1,990	\$510
General Construction Equipment	2023/2024	CON.01 - Surface Infrastructure Demolition Contractor - Large Excavator c/w Demolition Sheers and Breaker Hammers	100	V4	Months	0.5	\$16,500	\$8,250	100.00%	\$8,250.00	0.00%	\$0.00	70.70%	\$5,832	\$2,418
	2023/2024	CON.01 - Surface Infrastructure Demolition Contractor - Loader c/w Forklift Attachments	101	V4	Months	0.5	\$15,000	\$7,500	100.00%	\$7,500.00	0.00%	\$0.00	70.70%	\$5,302	\$2,198
	2023/2024	CON.01 - Surface Infrastructure Demolition Contractor - Tool Crib	102	V4	Months	0.5	\$3,000	\$1,500	100.00%	\$1,500.00	0.00%	\$0.00	70.70%	\$1,060	\$440
	2023/2024	CON.01 - Surface Infrastructure Demolition Contractor - Large AWP	103	V4	Months	0.5	\$5,000	\$2,500	100.00%	\$2,500.00	0.00%	\$0.00	70.70%	\$1,767	\$733
	2023/2024	CON.01 - Surface Infrastructure Demolition Contractor - Compressor Medium	104	V4	Months	0.5	\$6,500	\$3,250	100.00%	\$3,250.00	0.00%	\$0.00	70.70%	\$2,298	\$952
	2023/2024	CON.01 - Surface Infrastructure Demolition Contractor - 1/2 Supervision Trucks	105	V4	Months	0.5	\$2,500	\$1,250	100.00%	\$1,250.00	0.00%	\$0.00	70.70%	\$884	\$366
	2023/2024	CON.01 - Surface Infrastructure Demolition Contractor - Flat deck Trailers	106	V4	Months	0.5	\$5,500	\$2,750	100.00%	\$2,750.00	0.00%	\$0.00	70.70%	\$1,944	\$806
	2023/2024	CON.01 - Surface Infrastructure Demolition Contractor - Pumps	107	V4	Months	0.5	\$2,000	\$1,000	100.00%	\$1,000.00	0.00%	\$0.00	70.70%	\$707	\$293
	2023/2024	CON.02 - Civil Reclamation Contractor - CEQ Costs Included in the Unit Rates	108	V4	Lot	1	\$0	\$0	100.00%	\$0.00	0.00%	\$0.00	100.00%	\$0	\$0
Survey and Materials Testing	2023/2024	CON.02 - Civil Reclamation Contractor - Lab Facility for Materials Testing	116	V6	Months	0.5	\$15,000	\$7,500	99.71%	\$7,478.38	0.29%	\$21.62	79.61%	\$5,971	\$1,529
	2023/2024	CON.02 - Civil Reclamation Contractor - Standard Survey Equipment	117	V6	Months	0.5	\$6,500	\$3,250	99.71%	\$3,240.63	0.29%	\$9.37	79.61%	\$2,587	\$663
	2023/2024	CON.02 - Civil Reclamation Contractor - Nuclear Density Gauge	120	V6	Months	0.5	\$2,750	\$1,375	99.71%	\$1,371.04	0.29%	\$3.96	79.61%	\$1,095	\$280

Mobilization/Demobilization:

ACTIVITY/MATERIAL	Workplan ID	Notes	Workplan Item #	Discipline Code	Units	Quantity	BIM Unit Rate	Cost	%IOL	IOL Liability	%Crown	Crown Liability	% Land	Land Cost	Water Cost	
MOBILIZE CAMP																
MOBILIZE WORKERS																
Contractor Mobilization and Demobilization	2023/2024	Assume Contractor Mobilization and Demobilization Are Adequately Accounted for Additional Works in Legacy Security - Part of Legacy Security	084	V1		0		\$0	100.00%	\$0.00	0.00%	\$0.00	100.00%	\$0	\$0	
Survey and Materials Testing	2023/2024	CON.02 - Civil Reclamation Contractor - Survey Crew	118	V6	Weeks	2	\$25,200	\$50,400	99.71%	\$50,254.69	0.29%	\$145.31	79.61%	\$40,124	\$10,276	
	2023/2024	CON.02 - Civil Reclamation Contractor - Crew Vehicle	119	V6	Months	0.5	\$2,500	\$1,250	99.71%	\$1,246.40	0.29%	\$3.60	79.61%	\$995	\$255	
	2023/2024	CON.02 - Civil Reclamation Contractor - Travel, Engineering and Incidentals	121	V6	Months	0.5	\$2,500	\$1,250	99.71%	\$1,246.40	0.29%	\$3.60	79.61%	\$995	\$255	
Contractor Construction Management and Support Team	2023/2024	CON.01 - Surface Infrastructure Demolition Contractor - Site Superintendent	125	V7	Hours	168	\$165	\$27,720	100.00%	\$27,720.00	0.00%	\$0.00	70.70%	\$19,597	\$8,123	
	2023/2024	CON.02 - Civil Reclamation Contractor - Project Manager	126	V7	Hours	168	\$160	\$26,880	99.71%	\$26,802.50	0.29%	\$77.50	79.61%	\$21,399	\$5,481	
	2023/2024	CON.02 - Civil Reclamation Contractor - Site Superintendent	127	V7	Hours	336	\$165	\$55,440	99.71%	\$55,280.16	0.29%	\$159.84	79.61%	\$44,136	\$11,304	
	2023/2024	CON.02 - Civil Reclamation Contractor - Construction Engineer	128	V7	Hours	504	\$110	\$55,440	99.71%	\$55,280.16	0.29%	\$159.84	79.61%	\$44,136	\$11,304	
	2023/2024	CON.02 - Civil Reclamation Contractor - Site Safety	129	V7	Hours	336	\$115	\$38,640	99.71%	\$38,528.60	0.29%	\$111.40	79.61%	\$30,762	\$7,878	
	2023/2024	CON.02 - Civil Reclamation Contractor - Site Administration	130	V7	Hours	336	\$80	\$26,880	99.71%	\$26,802.50	0.29%	\$77.50	79.61%	\$21,399	\$5,481	
WORKER ACCOMODATIONS																
MOBILIZE FUEL																
WINTER ROAD																
DEMOBILIZE EQUIPMENT (includes disassembly, demob as well as worker accommodations and mob/demob)																
DEMOBILIZE FUEL																
DEMOBILIZE CAMP																
DEMOBILIZE WORKERS																
WINTER ROAD																
										IOL	Crown		Land		Water	
Directs Total								\$349,875	\$349,038		\$837		\$273,237		\$76,638	
% of Total										99.76%		0.24%		78%		22%

Mobilization/Demobilization:

ACTIVITY/MATERIAL		Workplan ID	Notes	Workplan Item #	Discipline Code	Units	Quantity	BIM Unit Rate	Cost	%IOL	IOL Liability	%Crown	Crown Liability	% Land	Land Cost	Water Cost
INDIRECT MOBILIZATION AND DEMOBILIZATION																
Fuel Mobilization	2023/2024		CON.01 - Surface Infrastructure Demolition - Demobilize Fuel from Milne Port and Ship on Fuel Tanker	145	W 1	Litres	0		\$0	100.00%	\$0.00	0.00%	\$0.00	0.00%	\$0	\$0
	2023/2024		CON.01 - Surface Infrastructure Demolition - Demobilize Mine Site Fuel from Milne Port and Ship on Fuel Tanker	146	W 1	Litres	7500	0.14	\$1,015	100.00%	\$1,014.67	0.00%	\$0.00	0.00%	\$0	\$1,015
	2023/2024		CON.01 - Surface Infrastructure Demolition - Demobilize Mine Site Fuel from Milne Port and Ship on Fuel Tanker	147	W 1	Litres	0		\$0	100.00%	\$0.00	0.00%	\$0.00	0.00%	\$0	\$0
Flights, Camp, and Catering	2023/2024		CON.01 - Surface Infrastructure Demolition - Contractor Flights	152	W 2	each	6	\$1,275	\$7,650	100.00%	\$7,650.00	0.00%	\$0.00	70.70%	\$5,408	\$2,242
	2023/2024		CON.02 - Civil Reclamation - Contractor Flights	154	W 2	each	58	\$1,275	\$73,950	99.71%	\$73,736.79	0.29%	\$213.21	70.70%	\$52,279	\$21,671
	2023/2024		CON.01 - Surface Infrastructure Demolition - Contractor Catering	153	W 2	Days	72	\$150	\$10,800	100.00%	\$10,800.00	0.00%	\$0.00	79.61%	\$8,598	\$2,202
	2023/2024		CON.02 - Civil Reclamation - Contractor Catering	155	W 2	Days	804	\$150	\$120,600	99.71%	\$120,252.29	0.29%	\$347.71	79.61%	\$96,011	\$24,589
											IOL	Crown		Land		Water
Indirects Total									\$214,015		\$213,454		\$561		\$162,296	\$51,718

Underground Mine Name					UG Mine # 1				
ACTIVITY/MATERIAL	Notes	Unit	Qty	Code	Unit Cost	Cost Land	Land Cost	Water Cost	
CONTROL ACCESS									
REMOVE HAZARDOUS MATERIALS									
INSTALL BULKHEADS									
FLOOD MINE									
INSTALL GROUNDWATER COLLECTION SYSTEM									
SPECIALIZED ITEMS									
Total						\$0	\$0	\$0	
% of Total							0%	0%	

Tailings Impoundment Name:

Pond # 1

ACTIVITY/MATERIAL	Notes	Units	Quantity	Cost Code	Unit Cost	% Cost Land	Land Cost	Water Cost
CONTROL ACCESS								
STABILIZE EMBANKMENT(S)								
COVER TAILINGS								
BURY PAG ROCK								
STABILIZE DECANT SYSTEM								
REMOVE TAILINGS DISCHARGE								
CONSTRUCT DIVERSION DITCHES								
FLOOD TAILINGS								
UPGRADE SPILLWAY								
CONSTRUCT SEEPAGE COLLECTION POND								
INSTALL GROUNDWATER COLLECTION SYSTEM								
SPECIALIZED ITEMS								
TREAT SEEPAGE - see "Water Management" and "Water Treatment"								
TREAT SUPERNATANT								
Annual treatment costs						\$0		
Number of years of treatment		years						
Total treatment costs						\$0		\$0
Total						\$0	\$0	\$0
% of Total							0%	0%

* for construction of passive treatment system refer to "Water Management"

Post Closure Water Treatment - Identified as long term/post-closure in 'Instructions' worksheet

ACTIVITY/MATERIAL	Notes	Units	Quantity	Cost Code	Unit Cost	Cost
ADDITION OF REAGENTS TO WTP						
LABOUR AND SUPPLIES						
WATER MANAGEMENT						
	Annual Water Treatment Cost for metals and TSS based on 2022 and 2023 discharge volumes and operational costs provided by BIMC	m3	193598	24WTS	\$1.62	\$313,629
Waste Rock Facility Water Treatment**						
KM105 Treatment Plant (2023-R WP)	Water treatment KM105 sedimentation	per year	1	WT	\$407,755.00	\$407,755
WTP WATER SAMPLING AND ANALYSES						
SITE ACCESS						
CONSTRUCT WATER TREATMENT PLANT						
ANNUAL ADJUSTMENT						
Annual Total						\$721,384

Notes

** - Understood to not include sampling or reporting costs

Filter by unit

ITEM	Detail	COST CODE	UNITS	LOW \$	HIGH \$	SPECIFIED \$
SLI Evaluated Unit Rate (\$/unit) (2019)						
	Grade and Contour	20GC	m2			\$1.49
	Grade and Contour With Liner	20GCL	m2			\$4.12
	Open Pit Dev - Grade and contour	22OP	m3			\$12.66
	Fill Application	20PF	m2			\$38.83
	Excavate, Haul, Backfill	24EHB	m3			\$6.02
	Blast, Haul, and Place Rock Cover	24WRC	m3			\$18.05
Cost for On-Site Disposal of Equipment:						
	Light Mobile Equipment	20MOL	Ea			\$729.17
	Medium Mobile Equipment	20MOM	Ea			\$1,162.50
	Heavy Mobile Equipment	20MOH	Ea			\$2,075.00
	Other mobile equipment (reclaim conveyor)	20MOR	Ea			
	Light mechanical equipment - Decon	20LME	Ea			\$1,583.75
	Medium mechanical equipment - Decon	20MME	Ea			\$3,392.50
	Heavy mechanical equipment - Decon	20MEH	Ea			\$32,950.00
	Light Tanks	20TL	Ea			\$1,710.42
	Medium Tanks	20MT	Ea			\$5,900.00
	Light Diesel Tanks	20LIDT	Ea			\$2,950.00
	Medium Diesel Tanks	20MDT	Ea			\$12,982.50
	Large Diesel Tanks	20LDT	Ea			\$85,157.50
	Largest Diesel Tanks	20XLDT	Ea			137,227.5
	Misc Items (Minor)	20MEI	Ea			425.0
	Fuel tanks - Medium Mobile Diesel Tank	20MMFT	Ea			\$8,381.25
Cost for On-Site Disposal of Buildings:						
	Fencing Demolition	24DF	m			\$55.95
	Fencing Load, Haul, Dump	24FLH	m3			\$12.17
Removal of Contaminated Buildings						
	fold away	20RCBF	m2			\$114.04
	ISO Shipping Container	20RCBI	m2			\$23.82
	modular	20RCBM	m2			\$114.89
	soft walled	20RCBS	m2			\$128.86
Removal of Buildings						
	fold away	20RBF	m2			\$33.34
	modular	20RBM	m2			\$47.64
	ISO Shipping Container	20RBI	m2			\$23.82
	soft walled	20RBS	m2			\$38.11
	water and wastewater treatment facilities	20WWT	Ea			\$8,775.00
Foundations						
	Precast concrete	20FC	m2			\$30.86
	Slab on grade	20FS	m2			\$30.00
	Timber cribbing	20TC	m2			\$16.67
Reclaim roads						
	Remove bridges	20BR	Ea			\$161,904.76
Specialized Items						
	Power distribution - electrical cable	20EC	m			21.3
	Electrical Cable	20EC	m			21.3
	Incinerator	20FI	Ea			7,925.0
	Potable Water	20PW	Ea			7,925.0
Blended Labour and Equip Rates (2018)						
	Blended labour rate	20BL	hr			\$75.00
	Blended equipment rate	20BE	hr			\$125.00
	Northern worker mobilization	20NWS	hr			\$75.00
	Southern worker mobilization	20SWS	hr			\$85.45
	Worker accommodation and camp operations	20WACS	person-days			\$225.00
Water management						
	Remove pipes	20RP	m			\$53.13
	Water Treatment	24WT	m3			\$1.62

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