

2016 Qikiqtani Inuit Association (QIA) and Nunavut Water Board (NWB) Annual Report for Operations

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Water Licence 2AM-MRY-1325 and Commercial Lease Q13C301
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March 31, 2017 / ᑎ᷉᷉᷉ 31, 2017



BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2016 QIKIQTANI INUIT ASSOCIATION (QIA) AND NUNAVUT WATER BOARD (NWB)
ANNUAL REPORT FOR OPERATIONS

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ANNUAL REPORT FOR OPERATIONS

EXECUTIVE SUMMARY

This report to the Qikiqtani Inuit Association (QIA) and Nunavut Water Board (NWB) has been prepared to summarize the Project activities and monitoring conducted under Baffinland Iron Mines Corporation's (Baffinland) Type A Water Licence 2AM-MRY1325 (Type A Water Licence) in 2016 and address annual reporting requirements set forth in the Commercial Lease No. Q13C301 (Commercial Lease) agreed upon by the QIA and Baffinland. All reporting requirements stipulated in the Commercial Lease except a summary of exploration and drilling activities conducted in 2016 are included within this report. A separate annual report has been prepared for the QIA and NWB to summarize exploration and geotechnical drilling activities conducted within the scope of Baffinland's Type B Water Licence 2BE-MRY1421 (Type B Water Licence) and Commercial Lease during 2016.

During 2016, mining operations at the Mary River Project Deposit 1 produced a total of 3.38 Mt of iron ore, compared to the 1.3 Mt produced in 2015. Ore produced by mining operations at the Mine Site was transported by ore haul trucks along the Tote Road and stockpiled at the Milne Port Ore Stockpile Pad. During the 2016 open-water shipping season (July to October), a total of 2.70 Mt were shipped to market using 38 vessels, with the majority of ore being delivered to ports in Northern Europe. Following the open water season, ore continued to be stockpiled at the Milne Port Ore Stockpile Pad to be shipped to market in 2017.

Mining operations along with development of Project infrastructure continued throughout 2016. A description of the key Project activities executed under the Type A Water Licence and the Commercial Lease are presented below by Project area.

Mary River Mine Site

At the Mary River Mine Site, the key Project activities included:

- _) Mining of Deposit 1 and the crushing and stockpiling of ore at the crusher pad
- _) Upgrades to the Deposit No. 1 Mine Haul Road to improve surface water drainage and facilitate pit development and mining
- _) Completed construction of the Waste Rock Stockpile Sedimentation Pond and associated drainage ditches.
- _) Extraction of rock material from Quarry QMR2 and D1Q2
- _) Continued deposition of non-hazardous wastes at the Mine Site landfill facility
- _) Installation of check dams and other control measures to address sedimentation issues during freshet (spring melt)
- _) Upgrades to the crusher pad to improve surface water drainage to the pad's sedimentation pond, including pad contouring, culvert installation and secondary drainage ditching

-) Ongoing construction and commissioning of the Mine Site Truck Wash Facility

Tote Road

Along the Tote Road, key Project activities included:

-) The transportation of iron ore using ore haul trucks from the Mary River Mine Site to Milne Port for stockpiling
-) Trucking of fuel and other supplies from Milne Port to the Mary River Mine Site to support Project operations and development.
-) Consolidation and widening of the road base and localized road realignment and adjustments to the road grade where required to improve operational efficiency and address safety concerns.
-) Implementation of a freshet management plan, including upgrades to drainage ditches/swales and the use of sediment control measures, to address sedimentation concerns
-) Continued development of Km 97 borrow area for winter sanding
-) Bridge maintenance, including abutment stabilization and reinforcement.
-) Removal of the seacan bridge at Km 62
-) Application of calcium chloride and water for dust suppression purposes

Milne Port

At Milne Port, key Project activities included:

-) Continued stockpiling of ore at the Milne Port Ore Stockpile Pad prior to and following the 2016 open-water shipping season.
-) Marine shipment of iron ore to markets in Northern Europe
-) Extraction of rock material at Quarry Q1
-) Marine spill contingency training delivered to the Baffinland Emergency Response Team (ERT) members prior to the bulk fuel delivery at Milne Port
-) Completed construction of the Milne Port Ore Stockpile Pad diversion ditches, to improve pad surface water drainage and direct runoff to the pad's sedimentation ponds.
-) Completed commissioning of the 50,000 L modular fuel dispensing station for refueling ore haul trucks
-) Multiple sealifts, including the backhaul of equipment and waste to Southern Canada and the delivery of fuel, equipment, consumables and materials to support continued Project operations and development

Operational Challenges

As mining operations and overall production increased in 2016, Baffinland faced a number of operational challenges. Freshet in 2016 started early and was characterized by high flows in the tributaries and streams due to a thick snow pack and large snow drifts from blowing snow. During freshet in May and June, there were a number of sedimentation events and incidents where water samples collected downstream of Project construction and operation areas exceeded the applicable discharge criteria for total suspended solids (TSS).

These sedimentation events during freshet along with concerns identified by Indigenous and Northern Affairs Canada (INAC) and Environment and Climate Change Canada (ECCC) during an onsite inspection in May, resulted in Baffinland receiving a Fisheries Act Direction (FAD) from ECCC and a Letter of Non-Compliance (LNC) from INAC. The FAD and LNC specified measures to be taken by Baffinland to reduce the risk of ongoing and future sedimentation and to also take action to improve current conditions (e.g., completion of some construction ditching projects).

Baffinland acted quickly to address concerns raised in the FAD and LNC, and provided biweekly reports to INAC and ECCC to inform regulators of the corrective actions taken throughout the summer. At the end of September 2016, a completion report was submitted to ECCC and INAC, outlining the measures to be taken to address the FAD and LNC, including a schedule of actions outlined in the Sediment and Dust Mitigation Action Plans to mitigate further possible Fisheries Act issues at the Mary River Project. Baffinland is actively following this schedule to prevent future non-compliance.

Spills

During 2016, twenty four (24) spills were reported to the Nunavut Spill Line, INAC and QIA. Overall, this represented a 42 percent reduction in the frequency of spills reported to the Nunavut Spill Line, INAC and QIA in 2016, in comparison to the frequency of spills reported in 2015.

On Aug 2, 2016, 155 cubic metres (m^3) of diesel was released into the engineered secondary containment berm of the Milne Port Tank Farm as result of a ruptured pipe. During the incident, no diesel fuel or impacted water was released to the receiving environment. To date operations has recovered 130 cubic metres (m^3) of diesel and impacted water from within the Milne Port Tank Farm containment berm. Operations continues to address the cause of the incident and will continue fuel recovery efforts, water treatment and stormwater monitoring at the Milne Port Tank Farm in 2017.

Baffinland investigates the basic causes of all spills that occur onsite so that effective long term corrective actions can be implemented to reduce the frequency of spills at Project sites. An example of these correction actions, includes the 2015 upgrades to the sewage lines servicing the accommodation complexes, which reduced the frequency of reportable sewage spills in 2016 by 80 percent when compared to reported sewage spills in 2015.

Water Use and Monitoring

Under the authorization of the Type A Water Licence, freshwater was withdrawn during 2016 to sustain three key activities at the Project: potable water supply (domestic), dust suppression and for miscellaneous (industrial) uses. During 2016, water volume withdrawal limits, stipulated in the Type A Water Licence, for domestic, industrial and dust suppression purposes were not exceeded at Project areas.

Throughout 2016, Baffinland continued to implement the monitoring program outlined in the Type A Water Licence, Schedule I, analyzing effluents (e.g., treated sewage, treated oily stormwater) discharged to the receiving environment and monitoring surface water quality within specific Project areas (e.g., surface water runoff downstream of Project areas). Based on a review of water licence effluent results reported as part of the water licence monitoring program, exceedances of applicable discharge criteria in 2016 involved mainly surface water runoff and effluents with elevated TSS levels. In each case, appropriate control measures were implemented to restore TSS levels below applicable discharge criteria.

In addition to the monitoring program outlined in the Type A Water Licence, Schedule I, ongoing environmental monitoring and effects studies, including the AEMP, were conducted during 2016 in accordance with the commitments made in the ERP, and the Final Environmental Impact Statement (FEIS) approved under the Project Certificate.

2016 Community Consultation

Throughout 2016, Baffinland continued to consult with the North Baffin communities and organizations, regarding construction activities at site, operations and the 2016 shipping season, progress regarding employment from the North Baffin communities, environmental monitoring activities and results, and future phases of the Mary River Project. Baffinland is committed to meaningful engagement with stakeholders potentially affected by the Mary River Project, applicable regulatory agencies and the general public.

Summary of Plans for 2017

The 2017 Work Plan was prepared and provided to relevant parties on November 4, 2016 as required under Section 6.1 of the Commercial Lease and under the Type A Water Licence, Part J, Item 3.

The 2017 Work Plan describes the planned development and operation of the mine, ore crushing and land transportation, stockpiling and marine shipment of ore, and the continued development and construction of infrastructure required at Milne Port, the Tote Road, and the Mine Site.

Baffinland has indicated to the QIA and NWB that an amendment to the 2017 Work Plan may be required to manage additional work associated with the Dust and Sedimentation Mitigation Actions Plans, developed in response to the FAD and LNC, and continued investment to support reaching the approved production rate of 4.2 Mt per annum.

Environmental monitoring in accordance with the approved Project Certificate, licences, authorizations, management plans and environmental effects monitoring plans will continue during 2017.

BAFFINLAND የኩስፌያ ፕሮፋክት

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2016-ج 1.3 Mt 3.38 Mt 2015-ج Mine Site-ج Milne Port-ج 2017-ج

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Canadian Arctic Resources Committee (CARC) and the Inuit Tapiriit Kanatami (ITK) have called for a moratorium on oil exploration in the Beaufort Sea.

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Δεκτικός ή διαδικτυακός σύντομος προσωπικού αριθμητικού πληροφοριακού συστήματος (EIS) για την αποτίμηση της επιχείρησης και την απόδοση της στην αγορά.

2016 ዘመን ተናብርሃን

2016-ஆம் ஆண்டு, Baffinland குடிலூர்களில் போக்குவரத்து மற்றும் விரைவான நிலை அமைப்புகள் எடுத்து விடப்பட்டன. இது முன்வரையில் நிலை அமைப்புகள் எடுத்து விடப்பட்டன என்று சொல்ல வேண்டும். இது முன்வரையில் நிலை அமைப்புகள் எடுத்து விடப்பட்டன என்று சொல்ல வேண்டும். இது முன்வரையில் நிலை அமைப்புகள் எடுத்து விடப்பட்டன என்று சொல்ல வேண்டும். இது முன்வரையில் நிலை அமைப்புகள் எடுத்து விடப்பட்டன என்று சொல்ல வேண்டும். இது முன்வரையில் நிலை அமைப்புகள் எடுத்து விடப்பட்டன என்று சொல்ல வேண்டும்.

2017-ի Հայաձևով Տարբերակը հաջողական է գործադրության մեջ և պահանջման մեջ՝ առաջարկություն է հանդիսանում ՀՀ պատմական ազգային արժեքների պահպանի համար և պահանջման մեջ՝ առաջարկություն է հանդիսանում ՀՀ պատմական ազգային արժեքների պահպանի համար:

«**Использование бюджетных средств на строительство и реконструкцию зданий и сооружений в целях модернизации и технического перевооружения производственных объектов, расположенных на территории Краснодарского края**».

BAFFINLAND IRON MINES CORPORATION
PROJET MARY RIVER

QIKIQTANI INUIT ASSOCIATION (QIA) ET OFFICE DES EAUX DU NUNAVUT (OEN)
RAPPORT ANNUEL DU FONCTIONNEMENT

SOMAIRE EXÉCUTIF

Ce rapport au conseil Qikiqtani Inuit Association (QIA) et à l'Office des eaux du Nunavut (OEN) a été préparé pour résumer les activités et la surveillance du projet menées en vertu du permis d'utilisation des eaux de type A de Baffinland Iron Mines Corporation (Baffinland) n° AM-MRY1325 (Permis d'utilisation des eaux de type A) en 2016 et pour répondre aux exigences de rapports annuels énoncées dans le bail commercial No. Q13C301 (Bail commercial) convenu par le QIA et Baffinland. Toutes les exigences de déclaration stipulées dans le Bail commercial, à l'exception d'un résumé des activités d'exploration et de forage menées en 2016 sont incluses dans le présent rapport. Un rapport annuel distinct a été préparé pour le QIA et l'OEN pour résumer les activités d'exploration et de forage géotechniques menées dans le cadre du Permis d'utilisation des eaux de type B de Baffinland n° 2BE-MRY1421 (Permis d'utilisation des eaux de type B) et du Bail commercial au cours de 2016.

Au cours de 2016, les opérations minières du gisement n° 1 du projet Mary River ont produit un total de 3,38 tm de minerai de fer, par rapport à 1,3 tm produit en 2015. Les minerais produits par l'exploitation minière au site minier ont été transportés par des camions de transport de minerai sur le chemin d'approvisionnement et stockés sur la plate-forme de stockage des minerais de Milne Port. Au cours de la saison de transport maritime de 2016 (juillet à octobre), un total de 2,70 tm ont été expédiés sur le marché en utilisant 38 navires, avec la majorité des minerais étant livrée aux ports d'Europe du Nord. Après la saison de transport maritime, les minerais ont continué d'être stockés sur la plate-forme de stockage des minerais de Milne Port pour être expédiés au marché en 2017.

Les opérations minières ainsi que le développement des infrastructures du projet se sont poursuivis tout au long de 2016. Une description des principales activités du projet exécutées dans le cadre du Permis d'utilisation des eaux de type A et du Bail commercial sont présentés ci-dessous par section du projet.

Site minier Mary River

Sur le site minier Mary River, les principales activités du projet comprenaient :

-) L'exploitation du gisement 1 et le broyage et stockage des minerais à la plate-forme de broyage
-) Les mises à niveau à la route de transport du gisement n° 1 pour améliorer le drainage des eaux de surface et faciliter le développement des puits et des mines
-) L'achèvement de la construction du bassin de décantation de l'amas de roches stériles et les fossés filtrants connexes.
-) L'extraction de matériaux rocheux de la carrière QMR2 et D1Q2
-) Le dépôt continu des déchets non dangereux au site d'enfouissement des sites miniers
-) L'installation de barrages de retenue et d'autres mesures de contrôle pour régler les problèmes de sédimentation pendant l'avalaison (fonte printanière)

-]) Les mises à niveau à la plate-forme de broyage pour améliorer le drainage des eaux de surface du bassin de décantation, y compris le contournage de la plate-forme, l'installation d'un ponceau et amerrissage de fossés filtrants
-]) La construction en cours et la mise en service de l'installation de lavage de camion du site minier

Chemin d'approvisionnement

Sur le chemin d'approvisionnement, les principales activités du projet comprenaient :

-]) Le transport par camion du minerai de fer du site minier de la mine de la rivière Mary à Milne Port pour le stockage
-]) Le transport par camion du carburant et d'autres fournitures de Milne Port au site minier de la rivière Mary pour appuyer les opérations et le développement du projet.
-]) La consolidation et l'élargissement de la couche de base et le réalignement de la route locale ainsi que les ajustements de la pente de la route nécessaires pour améliorer les problèmes d'efficacité opérationnelle et répondre aux exigences de sécurité.
-]) La mise en œuvre d'un plan de gestion des avaloisons, y compris les mises à niveau des fossés de drainage/dénivellations et l'utilisation des mesures de contrôle des sédiments, afin de régler les problèmes de sédimentation
-]) Le développement continu d'une carrière d'emprunt de 97 km pour le sablage hivernal
-]) L'entretien des ponts, y compris la stabilisation et le renforcement des culées.
-]) Le retrait des ponts à 62 km
-]) L'application de chlorure de calcium et d'eau à des fins de lutte contre les poussières

Milne Port

A Milne Port, les principales activités du projet comprenaient :

-]) Le stockage continue des minerais à la zone de stockage des minerais de Milne Port avant et après la saison de transport maritime de 2016.
-]) L'expédition maritime des minerais de fer aux marchés de l'Europe du Nord
-]) L'extraction de matériaux rocheux à la carrière QMR1
-]) La formation aux déversements en milieu marin donnée aux membres de l'équipe d'intervention d'urgence de Baffinland (EIU) avant la livraison de carburant en vrac à Port Milne
-]) L'achèvement de la construction des fossés de dérivation de la plate-forme de stockage des minerais de Milne Port pour améliorer le drainage des eaux de surface de la plate-forme et l'écoulement direct vers les étangs des bassins de décantation.
-]) L'achèvement de la mise en service de la station modulaire de distribution de carburant de 50 000 L pour le ravitaillement des camions de transport de minerai
-]) Plusieurs transports maritimes, y compris la livraison à contre courant des équipements et des déchets au Canada du Sud et la livraison de carburant, d'équipements, de consommables et de matériel à l'appui du projet ont poursuivi les opérations et le développement

Défis opérationnels

Alors que l'exploitation minière et la production globale ont augmenté en 2016, Baffinland a fait face à un certain nombre de défis opérationnels. L'avalaison en 2016 a commencé au début et a été caractérisée par de hauts débits dans les tributaires et cours d'eau en raison d'une accumulation de neige épaisse et de larges bancs de neige causés par des rafales. Au cours de l'avalaison en mai et juin, un certain nombre d'événements de sédimentation et d'incidents se sont produits où des échantillons d'eau prélevés en aval des zones de construction et d'exploitation du projet ont dépassé les critères de décharge applicables pour le total des solides en suspension (TSS).

Ces événements de sédimentation au cours de l'avalaison ainsi que les préoccupations identifiées par les Affaires autochtones et du Nord Canada (AANC) et Environnement et Changement climatique Canada (ECCC) lors d'une inspection du site en mai ont entraîné la réception par Baffinland d'une Directive (FAD) de l'ECCC et une lettre de non-conformité de l'AANC. La Directive et la lettre de non-conformité ont spécifié des mesures à prendre par Baffinland pour réduire le risque de sédimentation en cours et futurs et pour améliorer les conditions actuelles (par exemple, la réalisation de certains projets de construction de fosses).

Baffinland a agi rapidement pour répondre aux préoccupations soulevées par la Directive et la lettre de non-conformité et a fourni des rapports toutes les deux semaines à l'AANC et l'ECCC pour informer les organismes de réglementation des mesures correctives prises tout au long de l'été. À la fin de septembre 2016, un rapport d'achèvement a été soumis à l'ECCC et l'AANC, décrivant les mesures à prendre pour résoudre la Directive et la lettre de non-conformité, y compris un calendrier des actions définies dans les Plans d'action d'atténuation des sédiments et la poussière afin d'atténuer davantage les problèmes possibles liés au projet Mary River. Baffinland suit activement ce programme pour prévenir d'autres non-conformités.

Déversements

Au cours de 2016, vingt-quatre déversements (24) ont été signalés au numéro de déversement du Nunavut, à l'AANC, et au QIA. Dans l'ensemble, cela représente une réduction de 42 pour cent de la fréquence des déversements signalés au numéro de déversement du Nunavut, de l'AANC et du QIA en 2016, par rapport à la fréquence des déversements signalés en 2015.

Le 2 août 2016, 155 mètres cubes (m³) de diesel ont été déversés dans le deuxième talus de retenue du parc de stockage de Milne Port à la suite du bris d'un tube. Au cours de l'incident, aucune quantité de carburant diesel ou d'eau contaminée n'a été rejetée dans l'environnement. Jusqu'à ce jour, les opérations ont obtenu 130 mètres cubes (m³) de diesel et d'eau contaminée à l'intérieur du talus de retenue du parc de stockage de Milne Port. Les opérations continuent de traiter la cause de l'incident et de poursuivre les efforts de récupération de carburant, de traitement de l'eau et de surveillance des eaux pluviales au parc de stockage de Milne Port en 2017.

Baffinland enquête sur les causes fondamentales de tous les déversements qui se produisent sur place afin que des mesures correctives efficaces à long terme puissent être mises en œuvre pour réduire la fréquence des déversements dans les sites du projet. Un exemple de ces mesures correctives inclut les mises à niveau de 2015 aux lignes d'égout desservant les complexes d'hébergement, ce qui a réduit par 80 pour cent la fréquence des déversements d'eaux usées en 2016 par rapport aux déversements d'eaux usées signalés en 2015.

Utilisation et surveillance des eaux

Avec l'autorisation du Permis d'utilisation des eaux de type A, l'eau douce a été retirée au cours de 2016 pour soutenir trois activités clés du projet: l'approvisionnement en eau potable (domestique), la suppression de la poussière et divers usages (industriels). Au cours de 2016, les limites de retrait de volume d'eau stipulées dans le Permis d'utilisation des eaux de type A pour des fins domestiques, de suppression industrielle et de poussière n'ont pas été dépassées dans les zones du projet.

Tout au long de 2016, Baffinland a continué de mettre en œuvre le programme de surveillance décrit dans le Permis d'utilisation des eaux de type A, Annexe I, analysant les effluents (par exemple, les eaux usées traitées, les eaux de ruissellement traitées) déversés dans l'environnement et surveillant la qualité des eaux de surface dans les zones de projet spécifiques (par exemple, le ruissellement des eaux de surface en aval des zones du projet). Sur la base d'un examen des résultats des permis d'eau déclarés dans le cadre du programme de surveillance des permis d'eau, le dépassement des critères de décharge applicables en 2016 a impliqué principalement les eaux de ruissellement et des effluents avec des niveaux élevés de TSS. Dans chaque cas, des mesures de contrôle appropriées ont été mises en œuvre pour rétablir les niveaux de TSS aux niveaux applicables.

En plus du programme de surveillance décrit dans le Permis d'utilisation des eaux de type A, Annexe I, la surveillance de l'environnement et les études d'effets en cours, y compris l'AEMP, ont été réalisées au cours de 2016, conformément aux engagements pris dans l'ERP, et le Final Environmental Impact Statement (FEIS) approuvé dans le cadre du certificat de projet.

Consultation des collectivités en 2016

Tout au long de 2016, Baffinland a continué de consulter les communautés et les organismes du nord de Baffin, en ce qui concerne les activités de construction sur le site, les opérations et la saison de navigation 2016, les progrès en matière d'emploi des communautés du nord de Baffin, les activités de surveillance de l'environnement et les résultats et les étapes ultérieures du projet Mary River. Baffinland est engagé à un engagement significatif avec les parties prenantes susceptibles d'être touchées par le projet de Mary River, les organismes de réglementation applicables et le grand public.

Résumé des plans pour 2017

Le plan de travail de 2017 a été préparé et fourni aux parties concernées le 4 novembre 2016, comme l'exige l'article 6.1 du Bail commercial et sous le Permis d'utilisation des eaux de type A, partie J, article 3.

Le plan de travail de 2017 décrit le développement et l'exploitation prévue de la mine, le broyage et le transport terrestre, le stockage et l'expédition maritime du minerai, et la poursuite du développement et la construction des infrastructures nécessaires à Milne Port, sur le chemin d'approvisionnement et sur le site de la mine.

Baffinland a indiqué au QIA et à l'OEN qu'une modification au plan de travail 2017 peut être nécessaire pour gérer des travaux supplémentaires associés aux Plans d'atténuation de la poussière et de la sédimentation, mis au point en réponse au à la Directive et la lettre de non-conformité, et pour poursuivre des investissements pour atteindre le taux de production approuvé de 4,2 tm par an.

La surveillance de l'environnement conformément au certificat de projet approuvé, les licences, les autorisations, les plans de gestion et les plans de surveillance des effets environnementaux continueront au cours de 2017.

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SECTION 1.0 - INTRODUCTION

This report to the Nunavut Water Board (NWB) and the Qikiqtani Inuit Association (QIA) has been prepared to summarize the Project activities and monitoring conducted under Baffinland Iron Mines Corporation's (Baffinland) Type A Water Licence 2AM-MRY1325 (Type A Water Licence) in 2016 and address annual reporting requirements set forth in the Commercial Lease No. Q13C301 (Commercial Lease) agreed upon by the QIA and Baffinland. All annual report requirements for the Commercial Lease except a summary of exploration and drilling activities conducted in 2016 are included within this report. A separate annual report has been prepared for the NWB and QIA to summarize the 2016 exploration and geotechnical drilling activities conducted within the scope of Baffinland's Type B Water Licence 2BE-MRY1421 (Type B Water Licence) and Commercial Lease. Concordance tables referencing where in this report the annual reporting requirements outlined in the Commercial Lease and Type A Water Licence have been met are presented in Appendix A.

The Type A Water Licence includes provisions for sampling programs that involve recording data related to the volume of water extracted for any purpose, testing of effluents (e.g., treated sewage effluents) discharged to the environment, and monitoring water quality within specific Project areas (e.g., surface discharge downstream of construction areas, storm water from a engineered containment structure, sewage and oily water effluent, etc.). These data are summarized and referenced on the completed NWB Annual Report Forms, included as Appendix B, and are described in greater detail in subsequent sections.

Figures 1.1 and 1.2 present the locations of the key areas associated with the Mary River Project where activities in 2016 were undertaken. These areas included Milne Port (Figure 1.3), the Tote Road (Figure 1.4), the Mary River Mine Site (Figure 1.5) and Steensby Port (Figure 1.7). Mid-Rail camp, as shown in Figure 1.6, remained closed and unoccupied during 2016.

1.1 SUMMARY OF PROJECT ACTIVITIES FOR 2016

The Project activities undertaken in 2016 were conducted at Milne Port, along the Milne Inlet Tote Road, Mary River Mine Site and Steensby Port. The general Project activities conducted during 2016 included the following:

- _) The continued development and construction of infrastructure required at Milne Port and the Mary River Mine Site (Mine Site) for the Mary River Project.
- _) Operation of the mine, including the crushing, trucking and shipping of iron ore.
- _) At Milne Port, vessels carrying fuel, equipment and supplies for both use at the Mine Site and Milne Port arrived during open water season (July to October 2016).
- _) Material, fuel and supplies required for construction and operational activities were transported from Milne Port to the Mine Site year round via the Tote Road.
- _) Year-round operation of camp facilities at the Mine Site and Milne Port.
- _) Operation of the aerodrome at the Mine Site, which supported year round passenger and freight service by aircraft to/from local communities, Iqaluit and Southern Canada.
- _) Operation of helicopter and fixed wing aircraft to service regional exploration and environmental monitoring studies, and other general site activities.

- _) Care and maintenance of an inactive Steensby Port camp, including a sealift in August to backhaul historical hazardous waste for disposal at an approved/licensed facility in Southern Canada and transfer unused mobile equipment and accommodation infrastructure to Milne Port.
- _) Continued progressive reclamation of areas of current and past use in association with the historical exploration and bulk sample programs.
- _) Completion of environmental studies and monitoring programs identified in the FEIS and FEIS Addendum.
- _) Operation of the upgraded Bruce Head observation camp to support the monitoring program of narwhal response to shipping.
- _) Preliminary engineering, archaeological and environmental studies along the Tote Road for future Project expansion (Phase 2)

The 2016 Project sealift at Milne Port occurred between August and October 2016 and consisted of the following:

- _) Two (2) sealift vessels which offloaded consumables, equipment and materials required for the execution of construction and operational activities at the Mary River Mine Site, Tote Road, and Milne Port.
- _) The receipt of 35.1 ML of P-50 diesel fuel and 2.0 ML of Jet-A fuel at the Milne Port Tank Farm Facility via two (2) ship-to-shore floating hose fuel transfers in September and October
- _) The shipment off-site of various waste and hazardous materials generated from previous years for disposal at approved/licensed facilities in Southern Canada via sealift to the Port of Valleyfield, Quebec, and subsequent ground transportation to final disposal facilities.

In 2015, Baffinland and QIA developed a reporting template for Work Plans, as required under the Commercial Lease. A version of this template is used, below, to summarize the 2016 Work Plan submission (October 30, 2015), and the status of the activities, therein. The same template is included in Section 1.3 for the 2017 Work Plan, and will be utilized in all future work plan reporting.

Property Section (Milne Port, Tote Road, Mine Site)	Description	Was the Activity Completed in 2016?
	Provide a detailed description of the activity.*	-
New Work for 2016		
Mine Site	Install two 50,000 L portable fuel dispensing units.	No - deferred
Mine Site	Completion of the Waste Rock Stockpile Pond, Work includes, rip rap diversion ditch, complete bulk fill, place liner bedding material, install liner, and rip rap outside of berms.	Yes
Mine Site	Consideration given to designing and constructing a new landfarm during 2016, located adjacent to existing landfill area. Security will be adjusted accordingly should Baffinland decide to proceed with this activity.	No –deferred
Milne Port	Consideration given to designing and constructing a new landfill. Note this activity would require application and approval from NWB and QIA. Security to be adjusted accordingly should Baffinland decide to proceed with this activity.	No – deferred
Milne Port	Convert existing concrete batch plant to a maintenance building.	Yes
Milne Port	Construct approved PWSP at Milne Port.	No – deferred
Tote Road	Install and operate mobile maintenance depot along the Tote Road.	Ongoing
Tote Road	Bridge structure maintenance including abutment stabilization and reinforcement.	Yes
Tote Road	KM 10.5 – Quarry Management Plan Q9	No – deferred
Tote Road	Km 30.8 – Quarry Management Plan Q13	No – deferred
Tote Road	KM 38.6 – Quarry Management Plan Q14	No – deferred
Tote Road	Km 45 – Quarry Management Plan Q15	No – deferred
Tote Road	Km 50 – Quarry Management Plan Q16A	No – deferred
Tote Road	Km 65.1 – Borrow Source Management Plan P5	No – deferred
Tote Road	Km 67.1 – Borrow Source Management Plan P6	No – deferred
Tote Road	Km 71.7 – Borrow Source Management Plan P7	No – deferred
Tote Road	Km 73.1 – Borrow Source Management Plan P8	No – deferred
Tote Road	Km 75.9 – Borrow Source Management Plan P10	No – deferred
Tote Road	Km 85.5 – Borrow Source Management Plan P13	No – deferred
Tote Road	Km 90 – Borrow Source Management Plan P14	No – deferred
Tote Road	Km 91.1 – Borrow Source Management Plan P15	No – deferred
Tote Road	Km 8 – Widen road to the south. Reduce grade by means of cut and fill as required. Extend culverts as required.	No – canceled
Tote Road	Km 13 – Widen road, reduce grade by leveling knob and fill the low points. Cut and fill as required. Culvert extension and ditching required.	No (Required work completed in 2015)
Tote Road	Km 49 – Widen road to the east to reduce sharp turn. Reduce grade. Cut and fill as required.	No (Required work completed in 2015)
Tote Road	Km 58 – Widen and straighten the road. Extend culverts where required.	No – canceled
Tote Road	Km 65 – Realign road to address curve. Install and repair culverts where required.	No – canceled
Tote Road	Km 73 – Widen road to the south. Reduce grade. Cut and fill as required. Culvert extension required.	No – canceled

Tote Road	Km 74 – Widen road to the north. Reduce grade. Cut and fill as required. Culvert extensions required.	No (Required work completed in 2015)
Tote Road	Km 77 – Eliminate snow trap. Blast south side road embankment. Widen road.	Yes
Tote Road	Bridge Locations – Install snow fills and ice bridges for the purpose of transporting large wide loads from Milne Port to the Mine Site. Existing bridges are not adequate for large, wide and heavy loads.	No
Work Carried over from 2015 Work Plan Addendum		
Milne Port	Additional lay down areas required as storage for the 2016 Sealift equipment supplies and materials.	Yes
Milne Port	Continue to install and commission communications and IT infrastructure.	Yes
Tote Road	Continued improvements including realignment of the road and offsetting some culvert crossing locations for the purpose of improved safety and efficiency.	Ongoing (Realignments completed at Km 10, 45, 53, 54 and 55 during 2016)
Tote Road	Reduce maximum slopes to eliminate push locations. Increase turn radii and road embankment width and thickness for the purpose of improved safety and efficiency.	Ongoing
Tote Road	Improve curves where necessary and to improve sight distance and visibility along the road for the purpose of improved safety and efficiency.	Ongoing
Tote Road	Replacement of culverts and culvert extension as required.	Ongoing (CV104 replaced in November 2016)
Tote Road	Installation of safety berms as required.	Ongoing
Tote Road	Drill, blast, excavate, cut and fill activities as required to reduce steep grades and improve culverts where necessary to improve sight distance and visibility along the road.	Ongoing
Tote Road	Remove the three (3) remaining sea-can bridges.	Yes (all sea-can bridges were removed by the end of February, 2017)
Tote Road	Dust suppression along the Tote Road and the airstrip.	Yes
Mine Site	Temporary contractor infrastructure determined and required by construction contractors (including lunchrooms, offices, etc.), no new units required.	Ongoing
Mine Site	Complete truck wash.	Ongoing
Mine Site	Construct and install three (3) hazardous waste berms.	No - deferred
Mine Site	Ongoing maintenance and drainage improvements on the Mine Haul Road, Ore Crusher Stockpile Areas and Ponds.	Yes
Progressive Reclamation		
Milne Port	Management of hydrocarbon impacted soils within the existing landfarm facility.	Ongoing
Mine Site	Continuation of the decommissioning activities of the existing bladder farm at the Mine Site. Work includes the treatment of oily contact water and the management/storage of hydrocarbon impacted soils prior to placement in a landfarm facility.	Yes. (Mine Site bladder farm berm has been repurposed for the storage of drummed fuel and hydrocarbon contaminated water)

Tote Road	Continue the development and implementation of a long term multi-year plan to address localized areas of permafrost degradation associated with the current borrow areas including Km 97.	Ongoing
Tote Road	Reclamation of sections of the exploration phase Tote Road no longer in use by means of scarifying and culvert removal.	Ongoing
Milne Port	Demobilization of equipment and supplies not required for near term activities as well as current inventory of hazardous waste and other materials by means of sealift from Milne Port.	Ongoing
Mine Site	Continued development of the Mine Site landfill and deposition of non-hazardous waste in accordance with the Landfill Maintenance and Operations Manual.	Ongoing
Milne Port, Mine Site	Discharge and treatment of residual treated sewage effluent stored in PWSPs at Mary River Exploration Camp and Milne Port.	Ongoing (Discharge of MS-MRY-04C in June 2016)
Site Wide	Ongoing removal from site, or safe disposal of onsite infrastructure, equipment and supplies no longer required for ongoing construction and operations.	Ongoing
Site Wide	Unless otherwise identified within the approved Interim Closure and Reclamation Plan, where roads are no longer in use, culverts will be removed and natural drainage channel will be opened/restored. Measures will be taken to minimize erosion and sedimentation.	Ongoing
Side Wide	Areas that have been contaminated by hydrocarbons from normal fuel transfer, handling, and storage activities will be reclaimed to meet objectives as outlined in the Government of Nunavut's Environmental Guideline for Site Remediation (2010). Use of reclaimed soils for purpose of backfill or generate site grading may be carried out with approval of applicable inspectors and agencies.	Ongoing

1.2 REGULATORY FRAMEWORK

Although the key regulatory and legal documents that relate to this report are the Commercial Lease with the QIA and the Type A Water Licence issued by the NWB, this report is presented also in context of other applicable regulatory authorizations and schedules. Baffinland holds the permits and authorizations required to carry out the work for the future work scope. A listing of the regulatory permits and authorizations that allowed for work to be completed in 2016 is presented below. The reader is referred to Baffinland's 2016 Nunavut Impact Review Board (NIRB) Annual Report for a summary of compliance status and report submissions relative to the other key permits and authorizations.

Permit or Licence No.	Licence Name	Status Update for 2016	Expiry
Nunavut Impact Review Board			
No. 005	Amended Project Certificate	All works and activities proposed have been screened by the NIRB and have been considered in the amended Project Certificate issued by the NIRB in May 2014. A NIRB Annual Report is submitted by March 31 of each year summarizes the status of the Project relative to the conditions outlined in the Project Certificate.	N/A

Permit or Licence No.	Licence Name	Status Update for 2016	Expiry
Nunavut Water Board Licences			
2AM-MRY1325	Type A Water Licence – Amendment No. 1	In good standing; no amendments from previous year.	June 10, 2025
2BE-MRY1421	Type B Water Licence	In good standing; no amendments from previous year.	April 16, 2021
Qikiqtani Inuit Association			
Q13C301	Inuit Owned Land Commercial Lease	Compliance with the lease is outlined in the <i>2016 Annual Report to QIA and NWB</i> .	December 31, 2043
-	Inuit Impact and Benefit Agreement	Compliance with the agreement is outlined in the annual IIBA implementation report submitted by March 31 st of each year.	-
Crown Land Use Permits and Quarry Permits			
47H16-1-2	Foreshore Area for Milne Port Ore Dock Lease	In good standing; no changes from previous year. Will be renewed.	June 30, 2035
N2014Q0016	Tote Road and Borrow Area Land Use Permit	In good standing; no changes from previous year. Will be renewed.	June 30, 2017
N2014C0013	Steensby and Milne Land Use Permit	In good standing, no changes from previous year. Will be renewed.	June 30, 2017
N2014J0011	Bruce Head Land Use Permit	In good standing, no changes from previous year. Will be renewed.	June 30, 2017
N2014X0012	Milne Foreshore Land Use Permit	In good standing, no changes from previous year. Will be renewed.	June 30, 2017
Authorizations under the Fisheries Act			
06-HCAA-CA7-0084	Crossings along the Milne Inlet Tote Road Authorization	The authorization remains valid and has been amended over the years. Monitoring and reporting to DFO occurs annually.	December 31, 2016
14-HCAA-00525	Fisheries Authorization – Milne Ore Dock	A monitoring report for the construction of the ore dock was submitted to DFO on January 4, 2016.	December 31, 2020
NU-06-0084	Fisheries Authorization – Tote Road	-	N/A
Various Letter of Advice	Fisheries Crossings along Tote Road and Quarries, culvert extensions and replacements	-	N/A
Approvals under the Navigable Waters Protection Act (Transport Canada)			
8200-07-10273, 10267, 10269, 10268, 10274, 10272, 10266, 10271	Construction of Watercourse Crossings (Bridges and Culverts)	In good standing, no changes from previous year.	Until complete
4306-2-6- P/B	Occasional-Use Marine Facility	In good standing, no changes from previous year.	June 30, 2018

Permit or Licence No.	Licence Name	Status Update for 2016	Expiry
Licence under the Explosives Act			
F76068	Division 1 Factor Licence	Held by explosives contractor for the Project.	-

1.3 SUMMARY OF PROJECT PLANS FOR 2017

The 2017 Work Plan was prepared and provided to relevant parties on November 4, 2016 as required under Section 6.1 of the Commercial Lease and under the Type A Water Licence, Part J, Item 3 for the purposes of an Annual Security Review (ASR) for activities undertaken on an annual basis. The 2017 Work Plan describes the planned development and operation of the mine, ore crushing and land transportation, stockpiling and marine shipment of ore, and the continued development and construction of infrastructure required at Milne Port, the Tote Road, and the Mine Site. A copy of the 2017 Work Plan is provided on Baffinland's Document Portal located on the Baffinland website.

The continued operation and development of the Project as described in the 2017 Work Plan will require a 2017 sealift. It is expected that sealifts carrying fuel, equipment and supplies for use at the Mine Site and Milne Port will occur during open water (July and October 2017). Material, fuel and supplies required for operational and construction activities will be transported to the Mine Site year round via the Tote Road.

During 2017, surveys at project development areas may be required to support engineering, design, and construction activities of the Project. Ongoing environmental monitoring studies will continue to support the construction and operation of the Project. These activities will resume, as required, at Milne Port, along the Tote Road, at the Mine Site, at numerous quarry sites and at other Project development areas.

To address outstanding concerns identified by ECCC and INAC in the FAD and LNC, Baffinland will continue to advance the planned corrective actions and mitigation measures, outlined in the Dust and Sedimentation Mitigation Action Plans, throughout 2017.

Baffinland has indicated to the QIA and NWB that an amendment to the 2017 Work Plan may be required to manage additional work associated with the Dust and Sedimentation Mitigation Actions Plans, developed in response to the FAD and LNC, and continued investment to support reaching the approved production rate of 4.2 Mt per annum.

Environmental monitoring in accordance with the approved Project Certificate, licences, authorizations, management plans and environmental effects monitoring plans will continue during 2017.

SECTION 2.0 - WATER USE AND WASTE DISPOSAL ACTIVITIES

2.1 WATER USE

During 2016, water was withdrawn and used at Milne Port, the Tote Road and the Mine Site for operation and construction activities under the authorization of the Type A Licence. Water used for exploration and geotechnical drilling activities, with the exception of seven (7) cubic metres (m^3) in early October 2016, was withdrawn under the authorization of the Type B Water Licence and has been provided to the NWB and QIA in a separate annual report, *2016 QIA and NWB Annual Report for Exploration and Geotechnical Drilling Activities*.

Under the authorization of the Type A Water Licence, fresh water was withdrawn during 2016 to sustain three key activities: potable water supply for camp use, dust suppression and for miscellaneous (industrial) uses. The following sections describe water use at Project sites.

2.1.1 Quantities of Freshwater for Domestic, Industrial Purposes and Dust Suppression

Under the Type A Water Licence (Part E, Item 3), fresh water for domestic camp use, dust suppression and industrial purposes was obtained for the Mine Site, Milne Port and Tote Road in 2016. Approved water intake locations for Milne Port, the Tote Road, the Mine Site, Mid Rail Camp and Steensby Port are provided on Figures 1.3, 1.4, 1.5, 1.6 and 1.7 respectively. Water was not withdrawn to support the Mid Rail and Steensby Port camps in 2016.

Potable water for the Mine Site was withdrawn from a wet well jetty structure positioned 30 m from shore in Camp Lake (MS-MRY-1, Figure 1.5). Water was pumped directly from the lake source to water storage tanks located at the Mine Site exploration camp and to the Potable Water Treatment Plant (see Figure 1.5) using heat traced water pipelines. Potable water was supplied to Milne Port camp(s) from km 32 lake (MS-MRY-3, Figure 1.4) using a water truck.

Similarly, water withdrawn for dust suppression purposes from the various approved water sources along the Tote Road and applied to roadways in 2016 was conducted using water trucks.

During the period of October 4 to 6, seven (7) cubic metres (m^3) was withdrawn from km 32 lake (MS-MRY-3) under the Type A Water Licence to support the 2016 geotechnical drilling program along the Tote Road. Subsequent water requirements for the geotechnical drilling program during the end of October and early December were withdrawn under the authorization of the Type B Water Licence and are summarized in the Baffinland's *2016 QIA and NWB Annual Report for Exploration and Geotechnical Drilling Activities*.

Water volumes withdrawn in 2016 from authorized sources for domestic and industrial purposes, including dust suppression, were completed in accordance with the Type A Water Licence, Part I, Item 9. The total water used for domestic and industrial purposes and dust suppression were monitored for compliance with the maximum daily withdraw rates stipulated by the terms of the Type A Water Licence, Part E, Item 4 and Item 25. During 2016, there were no exceedances of authorized water withdrawal limits at approved water sources for domestic, industrial and dust suppression purposes. Refer to Table 2.1 for a summary of daily, monthly and annual volumes of freshwater withdrawn from approved water sources on Inuit Owned Land (IOL) during 2016 for domestic and industrial purposes. A detailed summary of daily and annual volumes of freshwater withdrawn for dust suppression purposes is provided in Table 2.2. There was no freshwater withdrawn from Crown Lands in 2016.

2.1.2 Reclaimed and Recycled Water

Under the Type A Water Licence (Part E, Item 5), freshwater was reclaimed from the Waste Rock Stockpile Sedimentation Pond (MS-08) at the Mine Site and applied along the Mine Haul Road for dust suppression purposes. Water was also withdrawn from shallow ponds and natural depressions at the Mine Site and Milne Port for dust suppression purposes and applied to camp pads and roadways. The shallow ponds and natural depressions were not fish habitat and formed following the development of Project pads and roadways. A summary of the daily and annual volumes of water reclaimed for dust suppression purposes is provided in Table 2.2.

2.2 SEWAGE, WASTE AND GREYWATER MANAGEMENT

Sewage and waste were generated and discharged/disposed under the Type A Water Licence in 2016.

2.2.1 Quantity of Treated Sewage Effluent and Sludge from WWTF and PWSPs

Throughout 2016, treated sewage effluent and sludge were generated at Project Waste Water Treatment Facilities (WWTFs) which utilized Membrane Bioreactor (MBR) technology.

The monthly and annual quantities of treated sewage effluent discharged at the Mary River Mine Site and Milne Port Camp WTTFs in 2016 are presented in Table 2.5. In 2016, sewage was treated or stored at the following locations:

Mary River Mine Site MBR Plant (MS-01)

Mary River Mine Site PWSPs (MS-MRY-4a, b, & c)

Milne Port MBR Plant (MP-01)

Milne Port PWSP (MP-01a)

Polishing Waste Stabilization Ponds (PWSPs) constructed at the Mine Site and Milne Port received and contained treated sewage effluent that did not meet direct discharge criteria for discharge to the receiving environment. During upset conditions, when untreated sewage was required to be removed from accommodation complex lift stations and/or Project WWTFs (during maintenance), the sewage was transported and discharged to PWSPs for temporary storage, and eventual treatment/discharge to the receiving environment, in accordance with the Type A Water Licence Part F, Item 17-18. Refer to Section 5.1.1 for additional information pertaining to the discharge of wastewater from the Mine Site PWSPs to Sheardown Lake in June 2016.

In 2016, treated effluent meeting criteria identified in the Type A Water Licence Part F (Items 17,18), was direct discharged via a dedicated pipeline from the Mine Site WWTF to the approved discharge locations located near Mary River (refer to Figure 1.5). At Milne Port, compliant treated effluent was either direct discharged from the Milne Port WWTF via a dedicated pipeline to the approved discharge location near Milne Inlet or transported from the Milne Port WWTF to the approved discharge location using a vacuum truck. Ongoing troubleshooting and repairs of the Milne Port effluent pipeline required the use of vacuum trucks to transport treated effluent from the Milne Port WWTF to the discharge location near Milne Inlet during periods in 2016. Quantities of treated sewage effluent discharged to authorized discharge locations are provided in Table 2.5.

Dewatered sludge (cake) generated at project sites in 2016 was removed daily and transported to camp incinerators for disposal. Refer to Table 2.5 for the volume of cake removed from project WWTFs.

Refer to Figures 1.3 and 1.5 for WWTFs and related infrastructure (PWSPs) located at Milne Port and the Mine Site.

2.2.2 Quantity of Treated Wastewater from Oily Water Treatment Facility (OWTF)

In 2016, the mobile Oily Water Treatment Facility (OWTF) was used to process hydrocarbon impacted water from the Mary River Fuel Bladder Farm (MS-MRY-6) during June, July and August and at the Milne Port Landfarm Facility (MP-04) during late August and early September.

Stormwater contained in the Milne Port Landfarm Facility (MP-04) was pumped into the contaminated snow containment pond prior to commencing treatment on August 22. In addition, 280 cubic metres (m^3) of hydrocarbon impacted water was collected from the Milne Port Tank Farm following the diesel release on August 2, 2016 and transported to the contaminated snow containment pond for treatment.

The oily water treatment system was effective at removing the organic constituents of 'oil and grease' to "non-detect" concentrations which were acceptable for discharge. In accordance with the Type A Water Licence (Part F, Item 22 and 23), periodic sampling and analyses by an independent laboratory (ALS Canada) were conducted for applicable water licence effluent parameters. Sampling and analyses were also conducted in the field on a daily basis utilizing a portable total oil and grease (TOG) analyzer. Approximately 1,312 m^3 (650 m^3 at MS-MRY-6 and 662 m^3 at MP-04) of effluent was released to the ground surface adjacent to the facilities (refer to Table 2.3). The nearest aquatic receiving environment (fish habitat) was located a distance of more than one kilometre from the point of discharge at both locations. The drainage pathways at both locations were characterized by disconnected and ephemeral drainages. A proportion of the effluent was observed to infiltrate into the ground surface adjacent to the discharge locations.

2.2.3 Quantity of Effluent from Surface Water Management Ponds

Construction of the Milne Port Ore Stockpile Sedimentation Ponds (MP-05 and MP-06) was completed in 2014 (refer to the 2014 QIA and NWB Annual Report). Final grading of the Milne Port Ore Stockpile Pad and construction of the pad's surface water diversion ditches were completed in June 2016 to effectively direct surface water runoff from the pad to the facilities sedimentation ponds. During 2016, approximately 7,758 m^3 (6,192 m^3 at MP-05 and 1,566 m^3 at MP-06) of effluent was discharged from the Milne Port Ore Stockpile Sedimentation Ponds to Milne Inlet.

Construction of the permanent Waste Rock Stockpile Sedimentation Pond (MS-08) at the Mine Site and associated diversion ditching began in September 2015 and was completed in August 2016. Prior to the completion of permanent Waste Rock Stockpile Sedimentation Pond, surface water from the waste rock stockpile was diverted into a temporary sedimentation pond constructed in 2015. Approximately 8,285 m^3 of effluent was discharged from the Mine Site Waste Rock Stockpile Sedimentation Pond to the receiving environment during periods in July, August and September.

The Mine Site Crusher Pad Sedimentation Pond was constructed in 2015 (refer to the 2015 QIA and NWB Annual Report). Final contouring and secondary drainage ditching of the crusher pad was completed in July 2016 to effectively direct pad surface water runoff to the Crusher Pad Sedimentation Pond (MS-06). Approximately, 86 m^3 of effluent was discharged from the Mine Site Crusher Pad Sedimentation Pond to Mary River using the sewage effluent pipeline at the Mine Site on September 12, 2016.

Table 2.4 provides the monthly and annual quantities of effluent discharged from the ore and waste rock stockpile sedimentation ponds. Inline flow meters were used to monitor volumes discharged to the receiving

environment during periods of flow. Refer to Section 5.3 for additional information pertaining to 2016 monitoring of surface water discharges from ore and waste rock stockpile sedimentation ponds.

2.2.4 Solid Non-Hazardous and Hazardous Waste Management

Camp Incinerators

In 2016, Mine Site and Milne Port incinerators were operated throughout the year to incinerate project solid waste as per regulatory guidelines including the Canadian Wide Standard (CWS) (*Government of Nunavut - Environmental Guideline for the Burning and Incineration of Solid Waste by the Department of the Environment, 2012*) and *Baffinland's Waste Management Plan (BAF-PH1-830-P16-0028)*. Refer to Section 7.5 for information pertaining to 2016 monitoring activities completed for incinerator ash generated at Project Waste Management Facilities.

Non-Hazardous Landfill Facility

In 2016, inert, non-combustible (plastics, cement, used construction materials, scrap metal, pipes, glass, etc.) waste generated by Project activities were disposed of at the Mine Site Landfill Facility. Non-hazardous waste, including ashes from the incineration and open-burning of clean wood processes, and waste which could not be salvaged or incinerated, was also deposited at the Landfill Facility. Disposal of domestic (food) waste, hazardous and biomedical materials at the Landfill Facility is prohibited. Visual inspections were completed throughout 2016 for various components and operation of the Landfill Facility as per Baffinland's *Landfill Maintenance and Operation Manual (BAF-PH1-320-T07-0004)*.

Table 2.7 provides the monthly and annual quantities of waste disposed of at the Mary River Landfill Facility in 2016. Since the commissioning of the landfill facility in 2008 a total of approximately 24,000 m³ of non-hazardous waste has been placed in the facility.

Hazardous Waste Materials Handling and Disposal

In 2016, there were two sealift backhaul events for non-hazardous and hazardous waste. The first backhaul sealift occurred at Steenbsy Port in August and involved the backhaul of historical hazardous waste to Southern Canada for disposal as well as the transfer of unused mobile equipment and accommodation infrastructure to Milne Port. The second backhaul sealift occurred at Milne Port in September and involved the transport of non-hazardous and hazardous waste materials generated and stored onsite after the 2015 backhaul. Prior to each backhaul, non-hazardous and hazardous waste materials were collected, packaged and manifested at the respective ports under the direction of Qikiqtaaluk Environmental (QE). Shipment offsite and transport to licenced waste receiving facilities in Southern Canada was then also conducted under the direction of Qikiqtaaluk Environmental (QE). No hazardous and/or non-hazardous waste was backhauled to communities in Nunavut during 2016. Appendices D.1 and D.4 provide additional information pertaining to Baffinland's waste management program and shipping manifests identifying materials shipped offsite in 2016, and disposed/recycled at approved waste management facilities. The Certificates of Disposal / Treatment – Storage and Transfer are also presented.

Non-hazardous waste and hazardous waste materials back-hauled off site in 2016 that were regulated by the Transportation of Dangerous Goods Act (TDGA) included (in alphabetical order):

- J Ammonium nitrate (empty bags with AN residue) - UN 1942

- _) Dry batteries containing potassium hydroxide – UN 3028
- _) Lab Waste - UN 3316
- _) Waste aerosol cans - UN 1950
- _) Waste Flammable Liquids - UN 1993
- _) Waste fuel - UN 1202, 1203, 1863
- _) Wet-acid batteries – UN 2796

Non-hazardous and hazardous waste materials back-hauled off site in 2016 not regulated by the TDGA included (in alphabetical order):

- _) Contaminated oily solids
- _) Contaminated soil
- _) Contaminated water
- _) Domestic waste
- _) Electrical waste (e-waste)
- _) Human waste
- _) Incinerator ash
- _) Inorganic, solids
- _) Kitchen grease
- _) Lab Waste
- _) Oil Filters
- _) Ore waste
- _) Scrap metal
- _) Waste glycol
- _) Waste grease
- _) Waste oil
- _) Waste latex paint

Hazardous waste and waste material (designated for disposal off-site) generated after the 2016 sealift backhaul is currently being sorted and stored in designated waste storage areas where it will be packaged and prepared for the 2017 sealift backhaul.

Hazardous materials and hazardous waste are managed on-site as described in Baffinland's *Hazardous Materials and Hazardous Waste Management Plan (BAF-PH1-830-P16-0011)*.

The following waste management facility locations are identified in Figures 1.3 and 1.5:

- _) Waste management buildings (including incinerators)

- _) Mary River Non-Hazardous Landfill Facility and access road
- _) Hazardous waste containment areas
- _) Milne Port Landfarm Facility

Table 2.6 provides coordinates for the various temporary and permanent waste storage areas used during 2016.

Open Burning

Untreated wood, cardboard, and paper products generated on-site are disposed of by authorized open-burning. Open-burning disposal reduces the volume of inert waste disposed at the Landfill Facility. When required, authorized open burning was conducted throughout 2016 as a method to dispose of untreated wood, cardboard, and paper products generated on-site as per Baffinland's *Open Burning of Untreated Wood, Cardboard and Paper Products Procedure (BAF-PH1-300-PRO-0001)*.

Only waste suitable for open-burning is segregated for open burning disposal. Baffinland's open-burning authorization prohibits the burning of hazardous wastes, non-combustible materials, food waste, plastics, Styrofoam or treated wood products (plywood). To ensure removal of prohibited waste, secondary waste segregation is completed during the loading process at Project open-burn facilities.

Bottom ash generated from open burn activities are suitable for landfill disposal.

Landfarm Facility

The Milne Port Landfarm Facility consists of two geomembrane lined containment cells. The larger west cell is used as a landfarm for the biotreatment of soils contaminated by hydrocarbons from spills.

The smaller east cell is used primarily for the containment of hydrocarbon contaminated snow collected during winter operations. It is also used as a repository for other sources of oily water at site and provides a practical location where oily water can be effectively treated. In August and September 2016 the mobile Oily Water Treatment System was used to treat oily water that had accumulated in the landfarm facility during 2016 (refer to Section 5.2 and Table 2.3).

In 2016, contaminated soils generated onsite were placed and spread during summer months for remediation through natural microbiological and evaporative processes. Table 2.8 provides the estimated monthly and annual quantities of soil and contaminated snow deposited at the Milne Port Landfarm Facility. Baffinland will continue to work to improve the documentation of soil quantities deposited at the Milne Port Landfarm Facility. Further treatment in accordance with Baffinland's *Landfarm Operation Maintenance and Monitoring Manual (BAF-PH1-320-T07-0005 r0)* will be undertaken during the 2017 summer season.

2.2.5 Ore and Waste Rock Quantities

Production blasting in the Deposit No. 1 Pit (Nuluujaak Pit) continued throughout 2016. Ore was transported to the crushers and screening units located at the Mary River Mine Site for processing and year-round transport to Milne Port via the Tote Road. The ore is stored on the Milne Port Ore Stockpile Pad to await loading onto ore carrier ships utilizing two ore shiploaders. Tables 2.9 and 9.1 presents the monthly and annual mined quantities of waste rock and ore removed from the pit, respectively. A total of 3.4 Mt of ore and 1.6 Mt of waste rock were generated during 2016. The waste rock was analytically tested based on operational testing protocols developed for the waste rock (refer to the approved Waste Rock Management Plan - BAF-PH1-830-P16-0029 r0 - Phase 1) and determination is made regarding whether the material is considered to be Potentially Acid Generating (PAG) or Non-Potentially Acid Generating (NPAG). The NPAG waste rock was utilized for construction purposes. The results of the geochemical operational testing program are provided in Section 7.9 and Appendix D.5.

SECTION 3.0 - SPILLS

Overall, the frequency of spills reported to the Nunavut Spill Line, INAC and QIA decreased by 42 percent in 2016, when compared to the frequency of reportable spills in 2015.

During 2016, twenty four (24) spills were reported to the Nunavut Spill Line, INAC and QIA. Five (5) spills were unauthorized releases of sediment to receiving water bodies during freshet and nineteen (19) spills met or exceeded the reporting threshold for hazardous materials as outlined in the Nunavut Spill Contingency Planning and Reporting Regulations. A basic summary of the reported spills is provided in the table below.

Product Spilled	2016 Reportable Spills		
	Number of Spill Reports by Location		
	Mine Site	Tote Road	Milne Port
Greywater	5	0	0
Sediment	4	1	0
Diesel (P50)	0	1	3
Gear/Lube Oil	2	1	0
Untreated Sewage	3	0	0
Hydraulic Oil	1	0	1
Waste Oil	2	0	0
Location Total	17	3	4
Annual Total	24		

The five (5) sediment releases occurred in water bodies at the Mary River Mine Site and along the Tote Road during freshet in May and June. Freshet in 2016 was characterized by high flows in the tributaries and streams due to a thick snow pack and large snow drifts from blowing snow and exacerbated by an early start to freshet. These sediment releases during freshet along with concerns identified by Indigenous and Northern Affairs Canada (INAC) and Environment and Climate Change Canada (ECCC) during an onsite inspection in May, resulted in Baffinland receiving a *Fisheries Act Direction* (FAD) from ECCC and a Letter of Non-Compliance (LNC) from INAC. Corrective and preventative actions planned and undertaken by Baffinland to address the sediment releases and concerns identified were reported to regulators in biweekly progress reports and a final completion report submitted to INAC and ECCC on September 30, 2016. Copies of the FAD, LNC and original spills reports along with the biweekly reports and completion report are provided in Appendix D.7. For additional information on the FAD and LNC, refer to Section 7.6.1 of this report.

For the remaining nineteen (19) spills, a detailed follow-up report was submitted within thirty days of each reported spill in addition to the original spill report submitted within 24 hours of each spill event. The follow-up reports included a description of the event, the immediate cause(s), corrective and preventative action(s), and a map showing the location of the spill.

All spills reported to the Nunavut Spill Line in 2016 are summarized in Table 3.1 and locations are shown in Figure 1.8. The follow-up spill reports and original spill reports are provided in Appendix D.7.7. It should be noted that five (5) of the reported spills occurred in secondary containment and did not result in hazardous materials being released to the receiving environment. Spills that did not result in a release to the receiving environment are identified in Table 3.1.

On Aug 2, 2016, a 6" pipe supplying the diesel fuel module at the Milne Port Tank Farm ruptured and resulted in 155 cubic metres (m^3) of diesel being released into the facility's engineered secondary containment berm. Released fuel was contained within the engineered secondary containment berm of the Milne Port Tank Farm and was not released to the environment. To date operations has recovered 130 cubic metres (m^3) of diesel and impacted water from within the Milne Port Tank Farm containment berm. Recovered diesel and impacted water are currently being stored in double walled tanks, totes and fuel bladders within the secondary

containment of the Milne Port Tank Farm. Fuel recovery efforts, water treatment, stormwater monitoring and the removal of temporary fuel and contaminated water storage will be ongoing in 2017.

A basic analysis of the nineteen (19) reportable spills involving hazardous materials indicated that the most common causes for the spills were equipment failure (component malfunction, preventive maintenance), improper operation of equipment, and procedural issues (inadequate procedure or training). Baffinland continues to work to identify basic causes so that effective long term corrective actions can be implemented. Mandatory spill reporting enforced at all levels in the organization, improved preventive maintenance plans, daily pre-operational checks of all equipment, spill tray usage bulletins, tool box meetings, prescribed training sessions, specific product handling and spill reduction plans are all examples of initiatives undertaken by Baffinland to reduce unauthorised discharges.

To ensure Baffinland's emergency response teams have the skills needed to safely and effectively respond to marine spills, Marine Spill Response Training was provided by external consultants at Milne Inlet on July 31, 2016, prior to the 2016 fuel resupply. During the training, the Project Emergency Response Plan (ERP), Spill Contingency Plan (SCP) and Milne Inlet Oil Pollution Emergency Plan (OPEP) documents were reviewed, as well as the Incident Command structure. During the practical deployment exercises, the responders were provided with the opportunity to learn and then practice skills responding to marine spills using the Milne Inlet resident spill response gear. The findings related to the training are used to inform revisions to the OPEP, ERP and SCP.

In 2015, gravity fed sewage lines on the exterior of accommodation wings at Milne Port and the Mine Site were upgraded to increase the physical flexibility of the gravity sewage lines and to reduce ambient temperature related expansion and contraction which was occurring at dorm room joints/couplings. Overall, these upgrades proved to be very effective and reduced the frequency and volume of sewage spills in 2016 by 80 and 88 percent, respectively, when compared to the frequency and volume of reportable sewage spills in 2015.

SECTION 4.0 - MODIFICATIONS

Modifications or major maintenance work undertaken on water or waste related structures during 2016 involved repairs to the Camp Lake jetty at the Mine Site.

4.1 CAMP LAKE WATER JETTY

Since its construction in 2014, sections of the jetty structure had experienced significant erosion as a result of wave action and ice abrasion at Camp Lake. During September, the jetty was repaired and armored along its perimeter to prevent similar erosion events from occurring in the future. Prior to the start of repair activities, silt curtains were installed around the perimeter of the jetty in mid-July. A fish survey was conducted prior to the start of repair activities to ensure fish were not entrained within the silt curtains. During repair activities, *in-situ* turbidity monitoring was conducted along the outside of the silt curtains to ensure temporary elevated turbidity levels caused by repair activities remained within the silt curtains. As-built drawings of the repair work are being finalized and will be provided to the NWB and QIA once available.

SECTION 5.0 - MONITORING

5.1 SEWAGE DISPOSAL

Sewage generated by Project activities is managed by the processes and procedures described in Baffinland's *Fresh Water Supply, Sewage and Wastewater Management Plan* (BAF-PH1-830-P16-0010) in accordance with Type A Water Licence, Part F Items 17 to 19.

During 2016, sewage generated from Project sites was directed to the WWTFs located at Milne Port and the Mary River Mine Site. Treated effluent was discharged to freshwater (Mary River) and the ocean (Milne Inlet) in accordance with the applicable effluent discharge limits as outlined in the Type A Water Licence.

During 2016, there was one exceedance of effluent discharge criteria for treated sewage effluent generated by Project operations. On February 23, 2016, a treated sewage effluent sample from the Mine Site WWTF (MS-01) exceeded the discharge criteria limit for faecal coliforms of 1000 CFU/100 mL with a result of 1050 CFU/100 mL. This exceedance was due to a temporary upset condition at the Mine Site WWTF and/or possibly a problem during sampling, resulting in a sample bias. The result from a subsequent sample taken on March 8 was below the applicable effluent discharge criteria with a faecal coliform count of 1 CFU/100 mL.

Table 2.5 provides monthly and annual quantities of treated sewage effluent and sludge from Project WWTFs.

Table 5.2 provides water quality monitoring results for treated effluent discharged from Project WWTFs (MS-01 and MP-01) during 2016.

5.1.1 2016 Mine Site PWSP Discharge to Sheardown Lake

In accordance with the PWSP Effluent Discharge Plan as presented in the approved *Fresh Water Supply, Sewage and Wastewater Management Plan* (BAF-PH1-830-P16-0010), wastewater stored in the Mary River Mine Site PWSP #3 (MS-MRY-04c) was discharged to Sheardown Lake in June 2016.

As outlined in the PWSP Effluent Discharge Plan, a pre-discharge sample of wastewater from Mine Site PWSP #3 (MS-MRY-04c) was analysed and confirmed to be compliant with applicable discharge criteria. A discharge of compliant effluent from Mine Site PWSP #3 to Sheardown Lake occurred from June 17 to 19 (1715 m³ total). During the discharge, frequent in field monitoring was conducted to ensure effluent discharged to Sheardown Lake remained in compliance with applicable discharge criteria. Table 2.5 highlights the monthly quantities of effluent discharged from the Mine Site PWSPs in 2016, and Table 5.2 presents the external laboratory effluent analytical results for the 2016 Mine Site PWSP discharge. No external or internal monitoring exceedances of water quality discharge criteria were observed during the PWSP discharge.

In the event of a water quality monitoring exceedance during a discharge, the effluent discharge would be stopped immediately and would not be continued until compliance with applicable discharge criteria could be demonstrated by additional water quality monitoring.

5.2 STORM WATER FROM CONTAINMENT AREAS

Prior to discharging stormwater from the lined containment areas servicing the bulk fuel storage facilities and hazardous waste berms at Milne Port and the Mine Site, in accordance to the Type A Water Licence (Part F, Item 9), accumulated storm water from rain and snow must be tested, treated and required to conform with Type A Water Licence (Part F Items 22 and 23) effluent water quality discharge criteria. These criteria have

been established in the water licence to protect receiving waters from the discharge of residual hydrocarbons, and associated contaminants that may be present. Table 2.3 highlights monthly quantities of treated oily water discharged in 2016, and Table 5.2 presents the external laboratory effluent analytical results for the mobile Oily Water Treatment Facility (OWTF).

In 2016, the mobile OWTF was used to treat hydrocarbon impacted water from the Mary River Fuel Bladder Farm (MS-MRY-6) during June, July and August and at the Milne Port Landfarm Facility (MP-04) during late August and early September.

The treatment system was effective at removing the organic constituents of ‘oil and grease’ to “non-detect” concentrations which were acceptable for discharge. Periodic scheduled sampling and analysis of the total oil and grease (TOG) effluent concentrations by an independent laboratory (ALS Canada) and daily by means of a field TOG analyzer confirmed compliance, in accordance to the Type A Water Licence, Part F Item 23. Approximately 1,312 m³ (650 m³ at MS-MRY-6 and 662 m³ at MP-04) of effluent was released to the receiving environment to the adjacent ground surface, infiltrating into the soil or following disconnected ephemeral drainages (refer to Table 2.3). From the point of discharge, there were no direct flow pathways to the nearest aquatic receiving environments (fish habitat) which were located more than one kilometre from the discharge points at both locations.

5.3 SURFACE RUN-OFF AND SEEPAGE

5.3.1 Facilities and Monitoring Locations

In accordance to the terms of Type A Water Licence (Part I, Item 14), surface run-off/ seepage from all facilities designed to contain, withhold, divert and retain water or wastes were monitored during periods of flow and after significant precipitation events. These included the Deposit 1 mining area (formerly bulk sample pit and ore stockpiles from 2008 Bulk Sample Program), the non-hazardous landfill, the Milne Port Ore Stockpile Pad and Sedimentation Ponds, the Mine Site Crusher Pad Sedimentation Pond and the Mine Site Waste Rock Stockpile Sedimentation Pond. The monitoring locations for the Mine Site and Milne Port are presented in Figures 1.3 and 1.5 respectively and in Table 5.1.

In accordance with the terms of the Type A Water Licence, Schedule I, these monitoring stations were monitored, during periods of flow, for the required parameters to protect receiving waters from the identified potential contaminants. In 2016, there was little discernible surface discharge from many of the monitoring stations established during the Project’s exploration phase due to the continued development of the project infrastructure and mining operations on Deposit 1. Based on hydrological monitoring of nearby streams, flows during 2016 were observed to be low in comparison to the average flows observed since local hydrological monitoring began in 2006. A summary of the monitoring stations and sampling events is provided below:

-]) Station MS-MRY-9 represents water flow/ seepage from the 2008 Bulk Sample pit. During 2016, no flows were observed from this monitoring station and subsequently samples were not taken. This area has been repurposed into a laydown and the monitoring station has become inactive.
-]) Station MS-MRY-10 represents the samples collected from the 2008 Bulk Sample weathered ore stockpile located adjacent to the bulk sample pit. During 2016, no flows were observed from this monitoring station and subsequently samples were not taken. This area has been repurposed into the growing Deposit No. 1 Pit, and the monitoring station has become inactive.
-]) Station MS-MRY-11 represents surface runoff from the 2008 Bulk Sample coarse and fine ore stockpiles at the Mary River Mine Site. The majority of these stockpiles have been removed or

capped due to construction and development of the area. During 2016, no flows were observed from this monitoring station and subsequently samples were not taken. Hence, this monitoring station has become inactive.

- | Station MP-MRY-12 represents runoff/seepage originating from the Milne Bulk Sample Stockpile. Construction of the Milne Port Ore Stockpile Pad and Ore Dock has impacted this area and this monitoring location is now within the footprint of these new facilities. During 2016, no flows were observed from this monitoring station and subsequently samples were not taken. Hence, this monitoring station has become inactive.
- | Stations MS-MRY-13a and 13b represent the surface runoff sample locations for the Mine Site Landfill. In 2016, surface water runoff from the Mine Site Landfill was initially sampled on May 23 and continued to be sampled until freeze-up in September. Continued flow of surface runoff downstream of the Mine Site Landfill during the open water season allowed for a water sample set to be taken each week for at least one of the monitoring stations in 2016.
- | Stations MP-05 and MP-06 represent the two sedimentation ponds that collect seepage/runoff from the Milne Port Ore Stockpile Pad. Final grading of the Milne Port Ore Stockpile Pad and construction of the pad's surface water diversion ditches were completed in June 2016. Both sedimentation ponds were initially sampled in late May and continued to be sampled throughout the open-water season until freeze-up in October with controlled discharges to the Milne Inlet occurring in June and August. Surveys of the pad following significant precipitation events confirmed diversion ditches constructed around the Milne Port Ore Stockpile Pad in July were working as designed and that surface water runoff from the pad was not bypassing the facility's sedimentation ponds.
- | Station MS-06 represents the sedimentation pond that collects seepage/runoff from the Mine Site Crusher Pad. Final contouring and secondary drainage ditching of the crusher pad were completed in July 2016. The Crusher Pad Sedimentation Pond was sampled in May and September during 2016 with a controlled discharge to the Mary River occurring on September 12 prior to freeze-up. Due to weather related logistical issues, the acute toxicity sample for the September discharge had exceeded its holding time upon reaching the ALS laboratory in Waterloo, ON, resulting in the sample not being analyzed. Surveys of the pad following significant precipitation events confirmed the secondary drainage ditching and pad contouring completed in July 2016 were effective in directing pad surface water runoff to the facility's sedimentation pond.
- | Station MS-08 represents the sedimentation pond that collects seepage/runoff from the Mine Site Waste Rock Stockpile. During 2016, construction of the permanent Waste Rock Stockpile Sedimentation Pond and associated diversion ditches and berms was completed. The Mine Site Waste Rock Sedimentation Pond was initially sampled in June and continued to be sampled each month from July to September, with controlled discharges to the receiving environment occurring in July, August and September. Due to inclement weather and logistical issues, the full pre-discharge sample set for the September discharge from the Mine Site Waste Rock Stockpile Sedimentation Pond was taken in late August. Despite not fulfilling the monthly sampling requirement stipulated in the MMER and Schedule I of the Type A Water Licence, pre-discharge samples collected on August 30, confirmed the effluent discharged in early September to be fully compliant with applicable discharge criteria.

5.3.2 Observations and Monitoring Results

In accordance to the terms of the Type A Water Licence, Part I, Item 27, the water quality results for these locations are provided in Table 5.2 and are compared to their applicable water licence discharge criteria stipulated by Schedule I. Based on the monitoring locations and sampling events listed above, the following observations and exceedances were documented in 2016.

Waste Rock Stockpile Facility (MS-08)

- _) During August 2016, field pH monitoring of seepage originating from the waste rock stockpile identified several locations on the west side of the waste rock stockpile where seepage had a pH value less than 6.5. These monitoring results have been incorporated into the current metal leaching and acid rock drainage (ML/ARD) characterization studies of materials from Deposit No. 1, further discussed in Section 7.9 and Appendix D.5.
- _) On September 2, inclement weather restricted access to Mine Site Waste Rock Sedimentation Pond discharge outfall location resulting in the water sample being collected directly from the pond. Elevated TSS levels seen in a sample collected from the pond at 11:00 AM were caused by snow and ice that had fallen into the pond at the sampling location which may have disturbed bottom sediments. A follow-up sample collected at 5:00 PM on September 2 confirmed that TSS levels were less than the applicable TSS discharge limit of 15 mg/L for grab samples. It should be noted that the monthly average of the 3 samples collected at MS-08 during September was 14.5 mg/L.

5.4 SURFACE RUNOFF AND/OR DISCHARGE DOWNSTREAM OF CONSTRUCTION AREAS AND QUARRIES

In accordance to the terms of Type A Water Licence (Part I, Item 25), surface runoff and/or discharge was monitored at stations established downstream of construction and operation areas at Milne Port and the Mary River Mine Site. Freshet in 2016 was characterized by high flows in the tributaries and streams due to a thick snow pack and large snow drifts from blowing snow and exacerbated by an early start to freshet. During freshet in May and June, there were a number of sedimentation events and incidents where water samples collected downstream of Project construction and operation areas exceeded the applicable discharge criteria for total suspended solids (TSS). However, as incident response measures were implemented, the majority of water samples taken downstream of Project construction and operations areas met the applicable discharge criteria.

Sedimentation events during freshet along with concerns identified by INAC and ECCC during an onsite inspection in May, resulted in Baffinland receiving a Fisheries Act Direction (FAD) from ECCC and a Letter of Non-Compliance (LNC) from INAC. Refer to Section 7.6.1 and Appendix D.7 for additional information regarding the FAD and LNC, as well as, Baffinland's response and corrective actions implemented to address concerns identified by regulators.

Surface water monitoring locations are presented in Figures 1.3 and 1.5, and in Table 5.1. In accordance to the terms of Type A Water Licence (Part I, Item 27), the water quality results for these locations are provided in Table 5.2 and are compared to applicable water licence discharge criteria. Daily discharge volumes were also measured where practicable at or near the surface runoff monitoring locations. These flow data and the methods used are presented in Appendix D.3.

In accordance to the terms of Type A Water Licence (Part I, Item 23), runoff and/or discharge water quality monitoring from borrow pits and quarry sites was conducted during 2016.

During 2016, there were six (6) incidents where water samples collected downstream of quarry locations exceeded applicable discharge criteria limits for TSS. Four (4) of these exceedances occurred during freshet in May and June and were a result of high flows and rapid snow melt. The remaining two exceedances, occurred at MQ-C-E and MQ-C-D in July and August, respectively, and were collected following significant precipitation events. The water quality monitoring results for surface water runoff from developed quarries are provided in Table 5.2 and are compared to applicable discharge criteria. Monitoring locations downstream of developed quarries are presented in Figures 1.3 and 1.5, and in Table 5.1.

In accordance to the terms of Type A Water Licence (Part I, Item 23), acute toxicity testing was also performed at surface runoff and/ or discharge locations from the Quarry Q1 at Milne Port and the Quarry QMR2 at the Mary River Mine Site during 2016 and results are presented in Table 5.3 of this report. A review of the acute toxicity results showed that runoff from Quarry Q1 and Quarry QMR2 was not acutely toxic during all sampling events in 2016.

Monitoring stations downstream of quarries and Project areas with elevated TSS levels were assessed and addressed using the appropriate sediment control measures, including silt fences, rip-rap, geotextile, flocculants and check dams. In most cases, results from subsequent water samples taken at monitoring stations that had shown elevated TSS levels confirmed that periods of flow with elevated TSS levels were short term in nature and that sediment control measures employed were effective in returning TSS levels below applicable discharge criteria.

Refer to Baffinland's *Surface Water and Aquatic Ecosystems Management Plan (BAF-PH1-830-P16-0026)* for the best management practices that are implemented as required at the Project to mitigate the impacts of sedimentation and erosion on the receiving waters, aquatic ecosystems, fish and fish habitat areas within the Project Development Area (PDA).

5.5 QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC)

Water quality samples related to monitoring programs being carried out in support of Baffinland's Mary River Project are presented in Table 5.2 of this report. Samples collected for testing follow the general recommendations presented in *Quality Assurance (QA) and Quality Control (QC) Guidelines for use by Class A Licensees in Meeting SNP Requirements and for Submission of a QA/QC Plan* (INAC, 1996).

Field QA/QC procedures adopted by the Mary River Project are described in detail in Baffinland's BAF-PH1-830-P16-0001 - Sampling Program - Quality Assurance and Quality Control Plan (the QA /QC Plan). Field QA/QC samples consist of the collection of field duplicates, field blanks, and the use of travel blanks. Of the 358 discrete sets of Water Licence regulatory samples collected in 2016, field QA/QC samples (20 duplicates, 4 field blanks and 5 travel blanks) comprised 8.1% of the total samples collected. This did not satisfy the minimum ten percent QA/QC sample requirement as stipulated in the QA/QC Plan. Baffinland will work to improve the water quality QA/QC program for Water Licence regulatory samples taken onsite in order to ensure that the minimum ten percent QA/QC sample requirement is achieved in future years.

The results and interpretation of the QA/QC program are presented in Table 5.4 of this report. Overall, the results for the field QA/QC program for Water Licence regulatory samples are acceptable with none of the field duplicates showing a percent difference in parameter values greater than 33%.

Laboratory analyses of water samples were carried out by three accredited analytical laboratories during 2016. A laboratory operated by ALS Environmental located in Waterloo, ON, run by ALS Canada Ltd. performed the majority of sample analyses in 2016. An on-site accredited field laboratory, located at the Mary River Mine Site¹, also operated by ALS Canada Ltd. performed select analyses in 2016 (pH, TSS, turbidity), reducing logistical costs, while providing timely results. Toxicity testing was conducted by Aquatox Testing & Consulting Inc., located in Guelph, ON, subcontracted by ALS.

ALS Environmental adheres to a designated QA/QC Management System which includes documentation and document control, staff training and internal audits. The practices exceed accreditation requirements for high confidence in data reliability utilising:

- _) Use of calibration verification standards and drift control standards.
- _) Use of surrogate standards and internal standards.
- _) Replicate analyses and blanks on submitted samples.
- _) Use of standard reference materials (SRM's) and matrix spikes.
- _) Standards Data Quality objectives are established for each QC sample, based on a combination of reference method objectives, customer requirements and historical test method performance.

The laboratory QA/QC data is reported in individual analytical certificates and the analytical results must lie within established QA/QC criteria prior to being issued to Baffinland.

5.6 AQUATIC EFFECTS MONITORING PROGRAM (AEMP)

The Aquatic Effects Monitoring Plan (AEMP) describes how monitoring of the aquatic environment will be undertaken at the Mary River Project. The AEMP was identified as a follow-up monitoring program in Baffinland's Final Environmental Impact Statement (FEIS; Baffinland, 2012) and is prescribed by the Type A Water Licence. The AEMP, specifically, is a monitoring program designed to:

- _) Detect short-term and long-term effects of the Project's activities on the aquatic environment resulting from the Project;
- _) Evaluate the accuracy of impact predictions;
- _) Assess the effectiveness of planned mitigation measures; and
- _) Identify additional mitigation measures to avert or reduce unforeseen environmental effects.

The AEMP focuses on the key potential impacts to freshwater environment valued ecosystems components (VECs), as identified in the Final Environmental Impact Statement and Addendum for the Early Revenue Phase (ERP). The freshwater VECs include water quantity, water and sediment quality, and freshwater biota and fish habitat. The AEMP has been structured to serve as an overarching 'umbrella' that conceptually provides an opportunity to integrate results of individual but related aquatic monitoring programs.

The following are the component studies that comprise the AEMP. The 2016 study reports are provided in Appendix D.9:

¹ Mary River Mine Site accredited laboratory operated by ALS Laboratory Group commenced operation in September 2014.

-) Core Receiving Environment Monitoring Program (CREMP), provides a basis for the evaluation of any mine-related influences on water quality, sediment quality and/or biota (including phytoplankton, benthic invertebrates and/or fish) within aquatic environments located near the mine. The 2016 study report is provided in Appendix D.9.1.
-) Lake Sedimentation Monitoring Program, evaluates baseline and project-influenced lake sedimentation rates. The 2016 study report is provided in Appendix D.9.2.
-) Hydrometric Monitoring Program, assesses flow in several streams and rivers near Project sites and supports the AEMP. The 2016 study report is provided in Appendix D.9.3.
-) Dustfall Monitoring Program, evaluates dustfall rates in proximity to the Tote Road, Milne Port and Mine Site. The 2016 study report is provided in the 2016 Annual Report to the NIRB.
-) Stream Diversion Barrier Study, an initial study evaluating potential for fish barriers under natural conditions and due to Project-related stream diversions. This study has been deferred due to the low impact anticipated by the much reduced footprint of the Waste Rock Storage Area during the Early Revenue Phase of the Project.
-) Environmental Effects Monitoring (EEM) Program, as required under the Metal Mining Effluent Regulations (MMER);

The 2016 AEMP study reports outlined above and provided in Appendix D.9 include the evaluation of Project related influences on chemical and biological conditions at mine-exposed water bodies following the second full year of mine operation.

5.7 NATURAL SEDIMENTATION EVENTS

During 2016, several significant natural sedimentation events were documented in the Mary River and Phillips Creek, as result of natural bank erosion upstream of Project infrastructure. Photographs of the events are provided in Appendix C.3.

-) On June 28, 2016 it was observed that a tributary was discharging significant amounts of sediment into Phillips Creek near the Km 17 Bridge along the Tote Road. Upon investigation, it was determined that an ice dam at the outlet of a highland lake had released, resulting in high flows and bank scouring and erosion of the Phillips Creek tributary. Water quality monitoring conducted at the outlets of the Phillips Creek tributary (near Km 17 Bridge) and Phillips Creek, presented in Table 5.5, indicated significant sedimentation during the event, with TSS levels reaching as high as 600 mg/L at the outlet of the tributary. Visual surveys of Milne Inlet confirmed that the sedimentation event had resulted in significant increases in turbidity levels throughout Milne Inlet.
-) On July 26, 2016 it was observed that Mary River was discharging significant amounts of sediment into Sheardown Lake (SE Basin) and Mary Lake (South Basin). Upon investigation, it was determined that the primary source of the sediment was natural bank erosion along a small Mary River tributary approximately 16 kilometers upstream of the Mine Site. The erosion of the bank appeared to be caused by a combination of recent rainfall events prior to the event and continued snow melt/thaw. Following the sedimentation event, the bank along the Mary River tributary continued to thaw and caused an additional sedimentation event in Mary River in late August.

SECTION 6.0 - CLOSURE

6.1 PROGRESSIVE RECLAMATION

Throughout 2016, the following progressive reclamation of areas of current and past use in association with exploration and construction phases of the Project were completed:

-) Continued development and implementation of a long term multi-year plan to address localized areas of permafrost degradation associated with the current borrow areas, including the borrow areas near Km 97. The Borrow Source Reclamation Plan, Milne Inlet Tote Road, Km 97 was submitted to INAC on June 19th, 2015. Borrowing in this area has led to thawing of the underlying permafrost soils, which has caused considerable increase in ponded water; and, there is settlement resulting from thaw of both the ground ice in the soil matrix and thaw of ice wedges. Although approved, due to resource limitations, no additional work was completed in 2016. Work completed to date includes the excavation of a ditching and swale structure at the southwest end of the former borrow area. Work will proceed with improved weather and when the appropriate resources are scheduled.
-) Demobilization and backhaul of equipment and supplies not required for near term activities, including the current inventory of hazardous waste and other materials by means of sealifts from Milne Port and Steenbsy Port.
-) Removal of the remaining bladder and its oily water contents from the Mine Site Bladder Farm at the Mine Site exploration camp. All bladders and piping were removed from Mine Site Bladder Farm and Generator Bladder berm at the Mine Site exploration camp in 2015, with the exception of a single bladder containing oily water in the Mine Site Bladder Farm. The remaining bladder and its oily water contents were shipped offsite during the 2016 backhaul sealift from Milne Port. The Mine Site Bladder Farm berm has been designated for the storage of drummed fuel and hydrocarbon impacted water. The Generator Bladder berm was not used for storage during 2016.
-) Off-site transfer, or safe disposal on-site of infrastructure, equipment and supplies no longer required for ongoing construction and operations. The items are defined by the Mary River Project Interim Closure and Reclamation Plan, and include infrastructure and site materials, fuel caches, drums, barrels, buildings and contents and equipment.
-) Ongoing management of hydrocarbon impacted soils from historical decommissioning efforts, as well as from periodic spills resulting from day-to-day fuel handling and management activities at both the Mine Site and Milne Port. These soils have been placed in the Milne Port Landfarm Facility for biotreatment. Geosynthetic liner and debris from historical decommissioning efforts and day-to-day operations were segregated and removed from the landfarm facility in 2016. Inert, non-hazardous debris was deposited in the Mine Site Landfill Facility. Geosynthetic liner was placed in 40' seacans and will be shipped offsite in 2017 for proper disposal at an approved waste facility. For approximate quantities of hydrocarbon impacted soils deposited in the Landfarm Facility during 2016, refer to Table 2.8 of this report. The total quantity of hydrocarbon impacted stored in the facility as of February 1, 2017 was approximately 9,900 m³.

6.2 CURRENT RESTORATION LIABILITY

The current status of restoration liability for the Project is summarized in the Table 6.1. Related documentation and correspondence is provided in Appendix D.8 which includes the following documents:

-) Letter from the Nunavut Water Board to the QIA and Baffinland, dated January 20, 2017, Re: Type "A" Water Licence No. 2AM-MRY1325, Baffinland Iron Mines Corporation , Mary River Mine Project: Direction from Nunavut Water Board Under the Annual Security Review Process Established Under Part C and Schedule C of the Water Licence
-) 2017 Marginal Reclamation and Closure Security Estimate (November 2, 2016).
-) 2017 Marginal Reclamation and Closure Security Estimate Addendum Memo (November 24, 2016).

SECTION 7.0 - PLANS, REPORTS AND STUDIES

7.1 SUMMARY OF STUDIES REQUESTED BY THE BOARD

In 2016, studies were not requested by the Board.

7.2 REVISIONS TO PLANS REPORTS AND MANUALS

In 2016, updates to Project management plans were minor and focused on ensuring management plans reflected current site conditions, policies and procedures.

Under the Type A Water Licence, management plans are to be periodically reviewed and revised annually as required. The management plans pertinent to the Type A Water Licence are stand-alone documents and are provided to the Board in digital copies submitted along with this report.

The current document registry of management plans related to the Type A Water Licence and the QIA Lease are presented below:

Management Plan	Current Version	Updated Since 2015 QIA/NWB Annual Report
Air Quality and Noise Abatement Management Plan	March 2016	No update
Emergency Response Plan	March 2017	Yes
Spill Contingency Plan	March 2017	Yes
Environmental Protection Plan	August 2016	Yes
Fresh Water, Sewage and Wastewater Management Plan	March 2016	No update
Hazardous Materials and Hazardous Waste Management Plan	March 2017	Yes
Interim Reclamation and Closure Plan	March 2016	No update
Surface Water Sampling Program - Quality Assurance and Quality Control Plan	March 2017	Yes
Aquatic Effects Monitoring Plan	March 2016	No update
Waste Management Plan	March 2017	Yes
Life of Mine Waste Rock Management Plan	April 2014	No Update
Explosives Management Plan	August 2013	No Update
Milne Port Oil Pollution Emergency Plan (OPEP)	July 2016	Yes
Exploration Spill Contingency Plan	June 2014	No Update
Exploration Closure and Reclamation Plan	July 2014	No Update
Terrestrial Environmental Management and Monitoring Plan	March 2016	No Update

Management Plan	Current Version	Updated Since 2015 QIA/NWB Annual Report
Roads Management Plan	March 2016	No Update
Borrow Pits and Quarry Management Plan	March 2014	No Update
Borrow Source Management Plan	October 2013	No Update
Site Specific Quarry Management Plans	Various below	
Borrow Source Management Plan – Kilometre 2	October 2014	No update.
Borrow Source Management Plan – Kilometre 97	October 2014	No update
Borrow Source Management Plan – Kilometre 104	March 2014	No update
Quarry Management Plan D1Q1	October 2013	No update
Quarry Management Plan D1Q2	October 2013	No update
Quarry Management Plan Q1	March 2013	No update.
Quarry Management Plan Q11	October 2013	No update
Quarry Management Plan Q19	October 2013	No update
Quarry Management Plan Q7	October 2013	No update
Quarry Management Plan QMR2	September 2014	No update

Following the update to the Environmental Protection Plan (EPP) in August, 2016, mandatory EPP training sessions were held for all onsite managers, supervisors and lead hands. The training sessions reviewed the EPP in detail and outlined the requirements for departments to ensure compliance with the EPP in their day-to-day operations. During 2016, 127 supervisors and managers attended the training sessions.

7.3 SUMMARY OF CONSTRUCTION ACTIVITIES

Development and construction of infrastructure required at Milne Port and the Mine Site continued throughout 2016 simultaneously with ongoing development and operation of the mining activities (ore crushing, transport, stockpiling and marine shipment of ore). Progress of construction activities presented as part of the 2016 Work Plan are summarized in Section 1.1 of this report. Construction activities completed in 2016 not included in the 2016 Work Plan included the armouring of the Camp Lake jetty at the Mine Site and the completion of the drainage diversion ditches for the Milne Port Ore Stockpile Pad and Sedimentation Ponds.

Ongoing compliance monitoring with regulatory permits, authorizations, Baffinland Environmental Management Plans and Baffinland Standard Operating Procedures (SOPs) was conducted throughout 2016 for construction activities. Corrective actions and compliance monitoring findings continue to be incorporated into Baffinland's Environmental Management Plans and SOPs. Refer to Section 7.2 of this report for details pertaining to the status of Baffinland's Environmental Management Plans relevant to the Type A Water Licence, Project Certificate No. 005 and the QIA Commercial Lease.

During 2016, Baffinland continued to work on sections of the Tote Road to improve operational efficiency and address safety concerns identified by Project personnel and the Mines Inspector (WSCC). To support Tote

Road construction activities, water quality monitoring was undertaken as required under Baffinland's Fisheries Authorizations and Environmental Protection Plans. Upstream and downstream water quality monitoring along with visual substrate characterization and flow estimates were completed at 14 stream crossings along the Tote Road construction. The 2016 DFO Annual Tote Road Report presents these results and is provided in Appendix C.4.

As required by the Type A Water Licence and Commercial Lease, Construction Summary Reports and as-built drawings for the infrastructure listed below are provided in Appendix C.1.

- _) Mine Haul Road surface water drainage improvements (ditches, culverts)
- _) Mine Site Waste Rock Stockpile Sedimentation Pond and associated drainage ditching
- _) Drainage ditches for the Milne Port Ore Stockpile Pad and Sedimentation Ponds
- _) Secondary drainage ditching for the Mine Site Crusher Pad and Sedimentation Pond

Part D, Item 18 in Baffinland's Type A Water Licence requires that Baffinland shall ensure the proper function of earthworks associated with facilities at the Mine Site and Milne Port camps such as the Mine Site landfill, PWSP cells, bulk fuel storage and ancillary fuel facilities. Bi-annual geotechnical inspections are required to be performed by a geotechnical engineer registered in Nunavut. To fulfill the requirement, geotechnical inspections of Project sites were conducted in 2016 during the periods of July 28 to 30 and October 5 to 11. Reports for the geotechnical inspections were submitted to the NWB within 60 days of each inspection and are provided in Appendix C.2.

Current site layouts of Milne Port and the Mary River Mine Site, are presented in Figures 1.3 and 1.5 of this report.

7.4 SUMMARY OF FUEL STORAGE

Throughout 2016, the Milne Port Tank Farm Facility included: three (3) 12 ML Arctic diesel field-fabricated tanks; one (1) 5 ML Arctic diesel field-fabricated tank; and three (3) 0.75 ML Jet-A1 fuel pre-fabricated tanks. All tanks are vertical single wall steel construction and designed to API 650 specifications.

Final commissioning of the prefabricated mobile diesel fuel dispensing module located near Milne Port Maintenance Building (originally a concrete batch plant) was completed in 2016. The module is contained within engineered secondary containment that meets the CCME "Environmental Code of Practice for Aboveground Storage Tank Systems Containing Petroleum Products" (2015) and was installed to facilitate the refuelling of ore haul trucks leaving Milne Port. The prefabricated diesel dispensing module is comprised of heated 20 foot ISO shipping container, with a 50,000 L double-walled diesel storage supply tank with fuel transfer equipment.

As of December 31st, 2016, there was 30.91 ML of Arctic diesel stored in five (5) steel tanks and 1.77 ML of Jet-A1 stored in three (3) steel tanks within the Milne Port Tank Farm Facility.

At the Mine Site Tank Farm Facility there was 1.38 ML of Arctic diesel stored in the four (4) steel 0.5 ML tanks in addition to 84,238 L of Jet-A1 fuel stored in two (2) 50,000 L steel tanks located at the Aerodrome.

The Mine Site Tank Farm Facility is supplied by bulk fuel tankers that transport fuel from the Milne Port Tank Farm using the Tote Road. The remaining fuel requirements needed for the various aspects of the Project were supplied using day tanks and 205 L drums.

In 2016, fuel for the Project was required to support the following activities:

- _) Diesel electric power generation and building heat;
- _) Light and heavy vehicle and equipment operation; and
- _) Fixed-wing aircraft and helicopter movement.

During 2016, drummed fuel was used mainly to support field studies and the geology and geophysics program. As of December 31st, 2016 there were 1504 - 205 L drums of fuel (624 Arctic diesel and 880 Jet-A1) stored at Steensby Port and 416 - 205 L drums (408 Jet-A1 and 8 gasoline) at the Mine Site. All drummed fuel at Project sites is stored within engineered lined containment structures.

It is Baffinland's practice to construct and operate its fuel storage/dispensing facilities and fuel handling/management practices in accordance with applicable guidelines and regulations such as the CCME "Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products (2015)", Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations (Canadian Environmental Protection Act, 1999 SOR/2008-197 June 12, 2008) and National Fire Code of Canada. To protect receiving waters, it is Baffinland's practice to endeavour, as practical, to store drummed fuel, petroleum based wastes, and other potentially hazardous products within lined containment areas whenever possible. Engineered lined containment areas are in place at the Mary River Mine Site, Milne Port, Steensby Port and Mid Rail camps for the storage of drummed fuel.

Part D, Item 18 in the Type A Water Licence requires that Baffinland shall ensure the proper function of earthworks associated with earthworks facilities at the Mary River Mine Site and Milne Port camps such as the bulk fuel storage and ancillary fuel facilities. Biannual geotechnical inspections are required to be performed by a geotechnical engineer registered in Nunavut. To fulfil the requirement, geotechnical inspections of Project sites were conducted in 2016 during the periods of July 28 to 30 and October 5 to 11. Reports for the geotechnical inspections were submitted to the NWB within 60 days of each inspection. Copies of the 2016 geotechnical inspection reports are provided in Appendix C.2.

7.5 RESULTS OF CHEMICAL ANALYSIS OF INCINERATOR ASH

To confirm that Project incinerators were operating as designed (per manufacturer's specifications), continuing process monitoring was completed throughout 2016. This included monitoring of temperature in the primary chamber, secondary chamber and stack; burn times, system pressure and fuel level.

Prior to disposal at the Mary River Landfill Facility, residual bottom ash generated from the incineration process was tested using Toxicity Characteristic Leaching Procedure (TCLP) analysis, as required by the Type A Water Licence (Part F, Item 7) to ascertain that disposal of residual bottom ash at the Landfill Facility did not have the potential to generate leachate at concentrations above water licence water quality criteria (refer to Baffinland's *Waste Management Plan - BAF-PH1-830-P16-0028*). In 2016, TCLP analytical results for composite ash samples were compared with Nunavut environmental guideline threshold values (Government of Nunavut. Department of Sustainable Development. Environmental Protection Service. Environmental Guideline for Industrial Waste Discharges. April 2014). Where results were found to be below established threshold values, ash was disposed of at the Landfill Facility. Where elevated levels of chromium were identified in composite ash samples collected (see Appendix D.2 for exceedance details), re-sampling was completed to identify the sample(s) (within the composite) with the elevated chromium levels. The identified ash sample(s) were then isolated, packaged and stored for shipment offsite to a licenced waste receiving facility in Southern Canada.

As per the Nunavut Environmental Guideline for the Burning and Incineration of Solid Waste, date and volumes of burnt waste onsite are recorded and maintained. The analytical certificates of analysis of ash generated onsite in 2016 and summary tables detailing the fate of ash processed in 2016 are provided in Appendix D.2.

7.6 INSPECTION AND COMPLIANCE REPORTS

In 2016, Baffinland hosted numerous regulatory inspections from INAC, ECCC and QIA, as well as the WSCC Mines Inspector.

7.6.1 Fisheries Act Direction and Letter of Non-Compliance

Baffinland received a *Fisheries Act Direction* (FAD) from Environment and Climate Change Canada (ECCC) and a Letter of Non-Compliance (LNC) from INAC on June 7, 2016 and June 16, 2017, respectively. The FAD and LNC were based on concerns identified during inspections made of the Mary River Project by ECCC and INAC Enforcement and Water Resources Officers during the period of May 18 to 20, 2016.

The FAD and LNC specified measures to be taken by Baffinland to reduce the risk of ongoing and future sedimentation and to also take action to improve current conditions (e.g., completion of some construction ditching projects). Baffinland in turn, acted quickly to address concerns raised in the FAD and LNC, providing biweekly progress reports and a final completion report to INAC and ECCC, to inform regulators of the corrective actions taken to address outstanding concerns. The FAD, LNC, biweekly reports and the completion report are provided in Appendix D.7.

7.6.2 INAC Inspections

During 2016, four (4) inspections were conducted by INAC Water Resources Officers:

- _) May 18 – 20
- _) July 6 – 8
- _) July 27 – August 3
- _) September 28 – 30

Inspection results were conveyed during close-out meetings and are documented in Water Licence Inspection Reports subsequently distributed to Baffinland. INAC inspection reports and Baffinland's follow-up reports addressing concerns and comments are provided in Appendix D.7.4.

7.6.3 QIA Inspections

In 2016, two (2) inspections were conducted on the following dates by the QIA under the agreement of Commercial Lease Q10C3001:

- _) June 24 – 28
- _) August 11 - 15

In addition to inspections, the QIA conducted one (1) environmental audit September 15 – 21, 2016.

The findings from the audit and inspections were conveyed during the close-out meetings between the QIA personnel and Baffinland representatives as well as documented in subsequent reports and correspondence.

The QIA inspection and audit reports along with Baffinland's follow-up correspondence are provided in Appendix D.7.5 of this report.

7.6.4 ECCC Inspections

In 2016, three (3) inspections were conducted on the following dates by ECCC Enforcement Officers.

- _) January 5 – 7
- _) May 18 – 20
- _) October 5 - 7

7.6.5 Workers' Safety and Compensation Commission (WSCC) Mine Inspections

In 2016, the Workers' Safety & Compensation Commission (WSCC) conducted four (4) inspections of both the Mine Site and Milne Port. The reports for these inspections were distributed to Baffinland management as well as Baffinland's Occupational Health & Safety (OHS) Committee. The inspections conducted over 2016 resulted in directives being issued to the company over the course of the year. All directives were reviewed by the management team and responses were sent to the Mines Inspector within a timely manner. The results of the inspections, including Baffinland's responses are provided in Appendix D.7.6 of this report.

7.7 QUANTITIES OF AGGREGATES FROM QUARRIES AND BORROW PITS

During 2016, Baffinland operated quarries and borrows to support Project road maintenance and infrastructure construction. The active quarry and borrow locations during 2016 included Q1, QMR2, D1Q2, Km 2, and Km 97. As per the requirements of the Commercial Lease (Part 6.4, item d) iv) and Type A Water Licence (Schedule B, Item (g), x), Table 7.1 and 7.2 provide quantities quarried of each specified substance (rock, overburden, organics) quarried each quarter, calendar year and annual reporting period (September 1 – August 31), broken down by individual quarry and borrow site. Quarterly quantities of rock removed from D1Q2 is currently unavailable. Baffinland will work to improve the documentation and reporting of specified substances removed from Project quarries and borrows.

7.8 SUMMARY OF GEOCHEMICAL ANALYSIS FOR QUARRIES

In accordance with terms of the Type A Water Licence (Schedule B Item g (xiii)) details of monitoring data with respect to geochemical analysis conducted on material used to construct roads, quarries and other infrastructure is presented in Appendix D.6. Appendix D.6 provides a statistical summary of the geochemical results to date for each quarry, in addition to the laboratory analytical data.

During 2016, an operational sampling program was conducted to confirm the original predictions that the aggregate material removed from quarries would have a low potential for Acid Rock Drainage / Metal Leaching (ARD/ML). During 2016, the Mine Operations Geology Department and the Environment department continued to conduct the established sampling program to confirm the low potential for Acid Rock Drainage (ARD) for quarries. Samples from this period were typically collected from blast hole cuttings. The results and summaries for this work are presented in Appendix D.6. When assessing whether aggregate is potentially acid generating (PAG), the general cut-off criteria used was a Net Potential Ratio (NPR) value less than two (2) and sulphur concentration greater than 0.20%.

The results provided in Appendix D.6 summary tables indicate low potential for ARD/ML as was originally predicted in the assessments made prior to development and documented in the applicable Quarry Management Plans.

7.9 GEOCHEMICAL WASTE ROCK STUDIES AND OPERATIONAL TESTING RESULTS

Geochemistry investigations with material derived from drill core continued during 2016. AMEC Foster Wheeler (AMEC) were retained throughout 2016 to continue to advance metal leaching and acid rock drainage (ML/ARD) characterization studies of materials from the Mary River Deposit No. 1. .

During 2016, the following activities related to the mine rock geochemistry program were conducted:

- ✓ Ongoing monitoring and interpretation of results for the operating humidity cells at SGS Canada Ltd.
- ✓ Operational geochemical testing of waste rock during the mining at Deposit No. 1 Pit.

The technical report presented in Appendix D.5 presents the updated results and interpretation of ongoing humidity cell test work assess the potential for metal leaching and acid rock drainage (ML/ARD) from waste rock related to mining of Deposit No. 1.

The operational testing results are also presented in Appendix D.5 and are summarized in three tables. The operational waste rock geochemical testing program that is being undertaken confirms predictions made with respect to the potential for acid rock drainage (ARD). The methods used are outlined in the Life-of-Mine Waste Rock Management Plan (April 2014) and is being undertaken by means of on-site determination of total S in blast hole cuttings. The operational testing results provide the basis for determination of waste rock material as being PAG (potentially acid generating) and NPAG (no-potentially acid generating). PAG waste rock that can be effectively segregated in the pit is transported for permanent storage at the waste rock dump located adjacent to the open pit. A 0.2% sulphur cut-off limit is being used as a basis for segregation. Waste rock that is <0.2% sulphur can used for construction purposes across the site.

Appendix D.5 also includes an update table which provides a status summary of the geochemical testing program that was presented as Table 7.1 in Appendix 3 of the April 2014 revision to the Life-of-Mine Waste Rock Management Plan.

SECTION 8.0 - PUBLIC CONSULTATIONS

Throughout 2016, Baffinland continued to consult with the North Baffin communities and organizations, regarding ongoing construction activities at site, operations and the 2016 shipping season, progress regarding employment from the North Baffin communities, environmental monitoring activities and results, and future phases of the Mary River Project. Baffinland's senior management team continued to participate in these meetings. In addition there were various stakeholder and government visits and tours of the Project site. The list of meetings held during 2016 and visits to the site are presented in Tables 8.1 and 8.2.

SECTION 9.0 - QUANTITY OF IRON ORE GENERATED BY THE PROJECT

Project mining activities continued throughout 2016 producing a total of 3,375,000 tonnes (2,449,000 tonnes of lump and 926,000 tonnes of fines) of Mary River Iron Ore mined from Deposit No. 1 (Nuluujaak Pit).

In 2016, quantities of iron ore were blasted and crushed at the Mary River Mine Site, loaded onto ore haul trucks, transported to Milne Port, and stockpiled at the Milne Port Ore Stockpile Pad for export off-site via ore ships during the 2016 open water season. A total of 2,720,000 tonnes were shipped to market from Milne Port on 38 vessels.

After the 2016 open water season, ore continued to be stockpiled at the Milne Port Ore Stockpile Pad for export off-site during the 2017 open water season.

Monthly and annual quantities of iron ore generated and shipped to market by the Project in 2016 are provided in Tables 9.1 and 9.2, respectively.

TABLES

TABLE 2.1
BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS

DAILY, MONTHLY AND ANNUAL QUANTITIES OF WATER USED FOR PROJECT SITES ON INUIT-OWNED LANDS AND CROWN LAND

Date	January			February			March				April				May			
	MS-MRY-1	MP-MRY-3	Total	MS-MRY-1	MP-MRY-3	Total	MS-MRY-1	MS-MRY-1 (Industrial)	MP-MRY-3	Total	MS-MRY-1	MP-MRY-1 (Industrial)	MP-MRY-3	Total	MS-MRY-1	MS-MRY-1 (Industrial)	MP-MRY-3	Total
1	(m ³)	0.0	(m ³)	(m ³)	(m ³)	(m ³)	0.0	(m ³)	(m ³)	(m ³)	(m ³)							
2	34.5	34.8	69.4	56.8	34.8	91.7	51.7	0.0	34.8	86.6	55.1	0.0	34.8	89.9	56.4	11.0	34.8	102.2
3	53.3	17.4	70.7	45.4	34.8	80.2	52.0	0.0	17.4	69.4	92.3	0.0	34.8	127.1	48.8	0.0	34.8	83.6
4	39.7	34.8	74.5	46.0	34.8	80.8	56.9	0.0	34.8	91.7	47.7	0.0	17.4	65.1	39.2	0.0	34.8	74.0
5	52.0	17.4	69.4	49.1	17.4	66.5	66.8	0.0	17.4	84.2	71.4	0.0	34.8	106.2	73.4	21.8	17.4	112.5
6	31.3	34.8	66.1	58.7	17.4	76.1	28.9	0.0	34.8	63.7	58.3	0.0	0.0	58.3	65.8	29.6	34.8	130.2
7	44.9	34.8	79.7	33.2	17.4	50.7	70.3	0.0	34.8	105.1	44.2	0.0	17.4	61.6	46.7	0.0	34.8	81.5
8	48.9	34.8	83.7	52.4	52.2	104.6	51.6	0.0	17.4	69.0	79.7	0.0	17.4	97.1	59.0	27.7	34.8	121.6
9	67.5	17.4	84.9	68.1	17.4	85.5	39.8	0.0	34.8	74.6	31.6	0.0	52.2	83.8	45.4	9.8	52.2	107.4
10	53.5	17.4	70.9	62.5	17.4	79.9	89.1	0.0	0.0	89.1	69.3	0.0	17.4	86.7	57.4	16.5	34.8	108.7
11	36.7	17.4	54.1	69.3	34.8	104.1	45.2	0.0	69.7	114.8	57.1	0.0	17.4	74.5	39.7	0.0	34.8	74.5
12	39.5	17.4	56.9	47.7	34.8	82.5	54.7	0.0	17.4	72.1	52.5	0.0	17.4	69.9	53.2	0.0	34.8	88.0
13	44.6	61.5	106.0	58.0	34.8	92.8	67.6	4.3	52.2	124.1	58.1	0.0	17.4	75.6	83.6	27.8	34.8	146.3
14	69.1	0.0	69.1	55.5	34.8	90.3	52.8	0.0	34.8	87.6	67.5	0.0	17.4	85.0	82.2	0.0	0.0	82.2
15	44.2	34.8	79.1	51.5	34.8	86.3	29.8	0.3	52.2	82.3	51.1	0.0	17.4	68.6	71.2	20.7	34.8	126.7
16	53.6	34.8	88.5	68.8	17.4	86.2	80.8	0.0	17.4	98.2	60.0	0.0	52.2	112.3	49.6	11.8	52.2	113.6
17	75.7	34.8	110.5	40.9	34.8	75.7	82.1	0.0	34.8	116.9	65.8	0.0	34.8	100.6	62.8	19.4	52.2	134.5
18	35.3	17.4	52.7	67.8	17.4	85.3	55.6	0.0	34.8	90.4	24.2	0.0	34.8	59.0	65.4	12.8	0.0	78.3
19	36.0	34.8	70.8	58.2	34.8	93.0	83.6	0.0	17.4	101.1	70.2	8.5	17.4	96.1	89.9	17.7	34.8	142.4
20	63.4	17.4	80.8	62.4	17.4	79.8	36.8	7.6	34.8	79.2	84.4	0.0	17.4	101.8	75.6	17.4	52.2	145.2
21	30.4	34.8	65.2	34.9	0.0	34.9	44.6	0.0	0.0	44.6	40.8	0.0	17.4	58.2	68.8	0.0	69.7	138.4
22	54.4	34.8	89.2	50.6	0.0	50.6	82.4	20.9	34.8	138.1	78.1	0.0	34.8	112.9	60.7	0.0	34.8	95.6
23	90.3	0.0	90.3	70.1	34.8	104.9	75.0	7.2	17.4	99.6	57.8	0.0	34.8	92.6	57.4	0.0	69.7	127.1
24	39.4	34.8	74.2	38.9	17.4	56.3	57.3	0.0	17.4	74.7	54.4	0.0	17.4	71.8	73.9	0.0	34.8	108.7
25	69.0	34.8	103.8	70.8	17.4	88.2	47.5	0.0	17.4	64.9	60.9	0.0	34.8	95.7	65.9	0.0	0.0	65.9
26	46.9	17.4	64.3	62.9	17.4	80.3	45.7	0.0	34.8	80.6	71.9	0.0	34.8	106.7	62.9	0.0	34.8	97.7
27	77.3	34.8	112.2	51.0	17.4	68.4	68.9	0.0	34.8	103.8	61.7	0.0	0.0	61.7	61.7	0.0	52.2	113.9
28	57.4	17.4	74.8	50.7	34.8	85.5	34.7	0.0	52.2	87.0	81.9	0.0	17.4	99.3	55.6	0.0	52.2	107.9
29	29.2	34.8	64.0	74.5	52.2	126.7	63.6	8.5	17.4	89.6	64.7	0.0	34.8	99.5	66.8	0.0	0.0	66.8
30	74.9	17.4	92.3	46.2	0.0	46.2	107.3	5.7	17.4	130.4	76.9	31.6	34.8	143.3	72.3	0.0	17.4	89.7
31	44.1	34.8	78.9	---	---	---	47.1	6.8	0.0	53.9	51.9	0.0	34.8	86.7	46.0	0.0	34.8	80.8
Total	1,585.6	827.6	2,413.2	1,602.8	731.3	2,334.1	1,824.0	61.2	905.5	2,790.7	1841.4	40.0	766.2	2,647.6	1,919.8	243.9	1,079.6	3,243.2

Date	June			July			August				September			October			
	MS-MRY-1	MP-MRY-3	Total	MS-MRY-1	MS-MRY-1 (Industrial)	MP-MRY-3	Total	MS-MRY-1	MS-MRY-1 (Industrial)	MP-MRY-3	Total	MS-MRY-1	MP-MRY-3	Total	MS-MRY-1	MP-MRY-3	MP-MRY-3 (Industrial)
1	(m ³)	(m ³)	(m ³)	43.9	4.5	34.8	59.3	34.8	94.1	(m ³)	(m ³)	(m ³)	(m ³)				
2	62.1	34.8	96.9	69.3	8.2	87.1	164.5	50.7	0.0								

TABLE 2.1
BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
DAILY, MONTHLY AND ANNUAL QUANTITIES OF WATER USED FOR PROJECT SITES ON INUIT-OWNED LANDS AND CROWN LAND

Date	November			December		
	MS-MRY-1	MP-MRY-3	Total	MS-MRY-1	MS-MRY-3	Total
1	(m ³) 46.3	(m ³) 34.8	(m ³) 81.1	(m ³) 76.7	(m ³) 33.7	(m ³) 110.4
2	50.5	52.2	102.7	55.5	29.1	84.6
3	52.1	34.8	86.9	33.0	26.0	59.0
4	78.6	52.2	130.8	34.2	29.4	63.7
5	72.4	17.4	89.8	64.7	30.0	94.7
6	54.9	34.8	89.7	69.4	34.6	104.0
7	50.5	17.4	67.9	48.2	31.1	79.3
8	50.5	34.8	85.3	63.4	27.4	90.8
9	43.9	17.4	61.3	67.0	31.4	98.3
10	71.7	17.4	89.1	48.0	36.7	84.7
11	70.0	17.4	87.4	48.3	25.4	73.6
12	63.5	34.8	98.3	62.9	30.3	93.2
13	54.4	52.2	106.6	63.1	31.9	95.0
14	69.2	17.4	86.6	49.2	32.8	82.0
15	98.9	34.8	133.7	67.7	26.2	93.9
16	38.8	17.4	56.3	56.1	29.1	85.2
17	73.0	34.8	107.8	61.4	34.2	95.6
18	48.7	52.2	101.0	52.1	36.3	88.3
19	74.1	34.8	109.0	69.1	30.6	99.7
20	62.5	34.8	97.4	64.7	27.7	92.4
21	79.9	0.0	79.9	55.3	34.4	89.8
22	65.5	0.0	65.5	43.0	32.4	75.4
23	45.3	34.8	80.1	61.8	34.2	96.0
24	91.8	34.8	126.6	57.7	27.1	84.8
25	58.3	52.2	110.6	59.1	26.9	85.9
26	49.3	34.8	84.1	68.7	27.1	95.8
27	56.3	34.8	91.1	32.0	31.4	63.4
28	50.3	34.8	85.2	57.9	28.1	86.0
29	88.9	17.4	106.4	43.3	35.4	78.7
30	56.4	52.2	108.7	59.4	30.8	90.2
31	---	---	---	74.1	30.8	104.9
Total	1,866.3	940.3	2,806.6	1,766.8	952.3	2,719.2

Note:

MS-MRY-1 Camp Lake Freshwater Use (Mine Site) - Daily Potable Water (m³)

MS-MRY-1 (Industrial) Camp Lake Daily Freshwater Use for Industrial Purposes (m³)

MP-MRY-3 Km 32 Lake Milne Port Camp Daily Potable Water (m³) MP-MRY-3

MP-MRY-3 (Industrial) Km 32 Milne Port Daily Water for Industrial Purposes (m³)

Water was obtained solely from Inuit Owned Land (IOL) sources in 2016

TABLE 2.2
BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
DAILY AND ANNUAL QUANTITIES OF WATER USED FOR DUST SUPPRESSION

Date ¹	Approved Water Sources for Dust Suppression (Type A Water Licence)									Recycled Water			Daily Total	
	Camp Lake	CV128 (Km 17)	Km 32 Lake	CV099 (Km 37)	Katiktok Lake (Km 52 - 58)	BG50 (Km 62)	BG32 (Km 78)	CV217 (Km 80)	Muriel Lake	CV233 (Tom River)	Surface Water Pond at Milne Port ²	Surface Water Pond near Mine Site Airstrip ³	Waste Rock Sedimentation Pond (MS-08) ⁴	
June 2, 2016	60.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60.6
June 9, 2016	30.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.3
June 11, 2016	75.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	75.7
June 12, 2016	60.6	0.0	0.0	0.0	0.0	0.0	90.8	0.0	0.0	0.0	0.0	0.0	0.0	151.4
June 15, 2016	0.0	0.0	0.0	0.0	90.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90.8
June 16, 2016	0.0	0.0	0.0	0.0	121.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	121.1
June 19, 2016	0.0	0.0	45.4	0.0	7.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	53.0
June 20, 2016	0.0	0.0	30.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.3
June 28, 2016	0.0	0.0	0.0	90.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90.8
July 1, 2016	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	151.4	0.0	0.0	151.4
July 2, 2016	0.0	0.0	0.0	90.8	0.0	0.0	0.0	0.0	0.0	0.0	181.7	0.0	0.0	272.5
July 3, 2016	0.0	0.0	0.0	0.0	121.1	0.0	0.0	0.0	0.0	0.0	0.0	242.3	0.0	363.4
July 4, 2016	0.0	0.0	0.0	0.0	90.8	0.0	0.0	60.6	0.0	0.0	0.0	121.1	0.0	272.5
July 5, 2016	0.0	0.0	0.0	30.3	0.0	90.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	121.1
July 6, 2016	0.0	17.0	0.0	0.0	0.0	0.0	90.8	0.0	0.0	0.0	68.1	60.6	291.5	528.1
July 7, 2016	0.0	51.1	153.3	0.0	0.0	90.8	0.0	121.1	212.0	0.0	51.1	0.0	265.0	944.5
July 8, 2016	0.0	0.0	51.1	51.1	151.4	121.1	0.0	60.6	60.6	0.0	34.1	0.0	397.5	927.4
July 9, 2016	0.0	0.0	119.2	0.0	30.3	121.1	0.0	121.1	151.4	30.3	0.0	0.0	397.5	971.0
July 10, 2016	0.0	0.0	102.2	0.0	60.6	90.8	0.0	121.1	212.0	30.3	0.0	0.0	132.5	749.5
July 11, 2016	0.0	0.0	0.0	0.0	0.0	0.0	30.3	60.6	60.6	0.0	0.0	0.0	0.0	151.4
July 12, 2016	0.0	0.0	0.0	0.0	0.0	0.0	30.3	60.6	0.0	0.0	0.0	0.0	0.0	90.8
July 13, 2016	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90.8	0.0	121.1	0.0	0.0	0.0	212.0
July 14, 2016	0.0	0.0	0.0	0.0	0.0	60.6	0.0	90.8	60.6	121.1	0.0	0.0	0.0	333.1
July 15, 2016	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90.8	0.0	0.0	0.0	90.8
July 16, 2016	0.0	0.0	0.0	0.0	0.0	0.0	30.3	90.8	30.3	0.0	0.0	0.0	0.0	151.4
July 17, 2016	0.0	0.0	0.0	0.0	0.0	30.3	0.0	30.3	60.6	60.6	0.0	0.0	0.0	181.7
July 18, 2016	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0	0.0	0.0	17.0
July 19, 2016	0.0	0.0	17.0	0.0	0.0	17.0	0.0	0.0	0.0	0.0	17.0	0.0	0.0	51.1
July 21, 2016	0.0	0.0	34.1	0.0	0.0	0.0	30.3	0.0	30.3	17.0	0.0	0.0	0.0	111.7
July 22, 2016	0.0	34.1	34.1	0.0	0.0	60.6	0.0	11.4	0.0	0.0	0.0	0.0	0.0	140.1
July 23, 2016	0.0	51.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	51.1
July 27, 2016	0.0	0.0	34.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.1
July 28, 2016	0.0	0.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0
July 29, 2016	0.0	0.0	0.0	0.0	0.0	30.3	0.0	30.3	0.0	90.8	0.0	0.0	0.0	151.4
August 1, 2016	19.9	0.0	0.0	0.0	0.0	0.0	0.0	22.7	0.0	15.1	0.0	0.0	0.0	57.8
August 3, 2016	0.0	0.0	0.0	0.0	0.0	0.0	90.8	0.0	0.0	0.0	0.0	0.0	0.0	90.8
August 4, 2016	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90.8
August 5, 2016	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90.8
August 6, 2016	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90.8
August 7, 2016	59.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	150.0
August 8, 2016	39.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39.7
August 11, 2016	38.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	38.0
August 13, 2016	38.6	0.0	0.0	0.0	0.0	30.3	0.0	90.8	0.0	60.6	0.0	0.0	0.0	220.3
August 14, 2016	26.5	0.0	0.0	0.0	0.0	0.0	0.0	121.1	0.0	121.1	0.0	0.0	0.0	268.7
August 15, 2016	61.7	0.0	119.2	0.0	0.0	0.0	60.6	30.3	60.6	0.0	0.0	0.0	0.0	332.3
August 16, 2016	23.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.8
August 17, 2016	16.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.6
August 18, 2016	21.0	0.0	68.1	0.0	0.0	0.0	90.8	0.0	30.3	0.0	0.0	0.0	0.0	210.3
August 19, 2016	0.0	0.0	17.0	0.0	0.0	121.1	0.0	121.1	0.0	30.3	0.0	0.0	0.0	289.6
August 20, 2016	0.0	0.0</												

TABLE 2.3
BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
MONTHLY AND ANNUAL QUANTITIES OF TREATED OILY WATER EFFLUENT

Day	June	July	August		September
	MS-MRY-6	MS-MRY-6	MS-MRY-6	MP-04	MP-04
1	0.0	25.8	0.0	0.0	34.0
2	0.0	6.9	0.0	0.0	35.0
3	0.0	89.1	0.0	0.0	14.4
4	0.0	0.0	0.0	0.0	37.5
5	0.0	0.0	0.0	0.0	24.2
6	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	70.1	0.0	0.0
8	0.0	0.0	66.1	0.0	0.0
9	0.0	0.0	18.5	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	18.2	0.0	0.0
14	75.5	0.0	0.0	0.0	0.0
15	66.9	0.0	0.0	0.0	0.0
16	7.3	0.0	0.0	0.0	0.0
17	5.8	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0
19	49.8	0.0	0.0	0.0	0.0
20	43.6	0.0	0.0	0.0	0.0
21	1.3	0.0	0.0	0.0	0.0
22	45.7	0.0	0.0	113.4	0.0
23	59.5	0.0	0.0	202.5	0.0
24	0.0	0.0	0.0	109.9	0.0
25	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	26.3	0.0
27	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	28.2	0.0
30	0.0	0.0	0.0	36.8	0.0
31	-	0.0	0.0	0.0	0.0
Total	355.2	121.8	173.0	517.0	145.1

Annual Total: 1312 m³

Note: Type A Water Licence (2AM-MRY1325) monitoring IDs. Volumes in cubic metres (m³)

TABLE 2.4
BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
MONTHLY AND ANNUAL QUANTITIES OF EFFLUENT DISCHARGED
FROM ORE AND WASTE ROCK STOCKPILE SEDIMENTATION PONDS

Day	June		MS-08	August			September	
	MP-05	MP-06		MP-05	MP-06	MS-08	MS-06	MS-08
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	584.6
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	687.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	308.7	0.0	0.0
7	0.0	0.0	0.0	103.6	0.0	656.4	0.0	0.0
8	0.0	0.0	0.0	938.9	0.0	302.5	0.0	0.0
9	0.0	0.0	0.0	839.9	0.0	0.0	0.0	0.0
10	0.0	364.5	0.0	127.7	0.0	0.0	0.0	0.0
11	0.0	319.2	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	148.3	0.0	0.0	0.0	0.0	85.5	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	359.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	919.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	652.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	604.1	0.0	0.0	0.0	0.0	83.8	0.0	0.0
18	533.9	0.0	0.0	0.0	0.0	567.2	0.0	0.0
19	263.3	0.0	0.0	239.7	0.0	767.0	0.0	0.0
20	0.0	0.0	135.0	372.8	0.0	0.0	0.0	0.0
21	0.0	0.0	252.8	243.3	0.0	0.0	0.0	0.0
22	0.0	0.0	129.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	366.2	566.8	0.0	0.0
30	0.0	0.0	0.0	0.0	368.0	232.3	0.0	0.0
31	-	-	0.0	0.0	0.0	286.3	-	-
Total	3,332.5	832.0	516.7	2,865.9	734.2	3,771.0	85.5	1,271.6

Annual Total: 13,409 m³

Note: MS-08 is the sedimentation pond for the Mine Site Waste Rock Stockpile. MS-06 is the sedimentation pond for the Mine Site Crusher Pad. MP-05 & MP-06 are, respectively, the East and West Milne Port Ore Stockpile Sedimentation Ponds. Volumes in cubic metres (m³).

TABLE 2.5
BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
MONTHLY AND ANNUAL QUANTITIES OF TREATED SEWAGE EFFLUENT AND SLUDGE REMOVED

Day	January		February		March		April		May		June		July		August		
	MS-01	MP-01	MS-01	MP-01	MS-01	MP-01	MS-01	MP-01	MS-01	MP-01	MS-01	MP-01	MS-MRY-4c ¹	MS-01	MP-01	MS-01	MP-01
1	34.5	34.8	56.8	34.8	51.7	34.8	55.1	34.8	56.4	34.8	62.1	34.8	0.0	69.3	87.1	43.9	34.8
2	53.3	17.4	45.4	34.8	52.0	17.4	92.3	34.8	48.8	34.8	35.8	52.2	0.0	74.3	0.0	50.7	52.2
3	39.7	34.8	46.0	34.8	56.9	34.8	47.7	17.4	39.2	34.8	57.6	34.8	0.0	53.1	52.2	49.5	52.2
4	52.0	17.4	49.1	17.4	66.8	17.4	71.4	34.8	73.4	17.4	52.7	34.8	0.0	187.5	34.8	57.0	69.7
5	31.3	34.8	58.7	17.4	28.9	34.8	58.3	0.0	65.8	34.8	49.3	52.2	0.0	97.5	52.2	55.0	17.4
6	44.9	34.8	33.2	17.4	70.3	34.8	44.2	17.4	46.7	34.8	52.4	34.8	0.0	156.2	17.4	45.9	34.8
7	48.9	34.8	52.4	52.2	51.6	17.4	79.7	17.4	59.0	34.8	47.1	34.8	0.0	120.0	52.2	40.1	69.7
8	67.5	17.4	68.1	17.4	39.8	34.8	31.6	52.2	45.4	52.2	40.0	52.2	0.0	70.3	34.8	55.6	52.2
9	53.5	17.4	62.5	17.4	89.1	0.0	69.3	17.4	57.4	34.8	68.7	52.2	0.0	64.4	69.7	48.8	52.2
10	36.7	17.4	69.3	34.8	45.2	69.7	57.1	17.4	39.7	34.8	42.5	52.2	0.0	97.7	17.4	52.5	52.2
11	39.5	17.4	47.7	34.8	54.7	17.4	52.5	17.4	53.2	34.8	35.4	34.8	0.0	58.1	52.2	51.6	52.2
12	44.6	61.5	58.0	34.8	67.6	52.2	58.1	17.4	83.6	34.8	43.1	34.8	0.0	80.3	52.2	39.5	52.2
13	69.1	0.0	55.5	34.8	52.8	34.8	67.5	17.4	82.2	0.0	70.5	69.7	0.0	65.0	52.2	43.8	34.8
14	44.2	34.8	51.5	34.8	29.8	52.2	51.1	17.4	71.2	34.8	55.5	0.0	0.0	48.8	52.2	61.1	52.2
15	53.6	34.8	68.8	17.4	80.8	17.4	60.0	52.2	49.6	52.2	45.0	69.7	0.0	52.2	52.2	40.2	69.7
16	75.7	34.8	40.9	34.8	82.1	34.8	65.8	34.8	62.8	52.2	51.2	34.8	0.0	44.1	17.4	52.2	69.7
17	35.3	17.4	67.8	17.4	55.6	34.8	24.2	34.8	65.4	0.0	52.9	69.7	375.2	88.4	34.8	33.8	34.8
18	36.0	34.8	58.2	34.8	83.6	17.4	70.2	17.4	89.9	34.8	52.7	34.8	804.0	55.5	52.2	44.5	52.2
19	63.4	17.4	62.4	17.4	36.8	34.8	84.4	17.4	75.6	52.2	49.4	34.8	536.0	52.2	34.8	52.6	34.8
20	30.4	34.8	34.9	0.0	44.6	0.0	40.8	17.4	68.8	69.7	53.5	34.8	0.0	52.3	34.8	64.8	52.2
21	54.4	34.8	50.6	0.0	82.4	34.8	78.1	34.8	60.7	34.8	44.9	0.0	0.0	62.7	34.8	48.7	34.8
22	90.3	0.0	70.1	34.8	75.0	17.4	57.8	34.8	57.4	69.7	44.3	0.0	0.0	52.6	34.8	47.4	69.7
23	39.4	34.8	38.9	17.4	57.3	17.4	54.4	17.4	73.9	34.8	43.6	17.4	0.0	49.9	52.2	49.2	17.4
24	69.0	34.8	70.8	17.4	47.5	17.4	60.9	34.8	65.9	0.0	46.1	17.4	0.0	54.7	52.2	43.6	69.7
25	46.9	17.4	62.9	17.4	45.7	34.8	71.9	34.8	62.9	34.8	37.9	52.2	0.0	53.9	52.2	57.9	17.4
26	77.3	34.8	51.0	17.4	68.9	34.8	61.7	0.0	61.7	52.2	51.3	17.4	0.0	77.1	34.8	35.8	52.2
27	57.4	17.4	50.7	34.8	34.7	52.2	81.9	17.4	55.6	52.2	49.8	52.2	0.0	49.9	34.8	55.0	0.0
28	29.2	34.8	74.5	52.2	63.6	17.4	64.7	34.8	66.8	0.0	54.1	69.7	0.0	65.0	69.7	45.5	0.0
29	74.9	17.4	46.2	0.0	107.3	17.4	76.9	34.8	72.3	17.4	56.8	34.8	0.0	71.6	34.8	41.6	34.8
30	44.1	34.8	---	---	47.1	0.0	51.9	34.8	46.0	34.8	52.1	34.8	0.0	38.3	34.8	47.0	52.2
31	48.5	17.4	---	---	53.8	69.7	---	62.4	34.8	---	42.1	17.4	0.0	54.6	34.8	34.8	52.2
Total	1,585.6	827.6	1,602.8	731.3	1,824.0	905.5	1,841.4	766.2	1,919.8	1,079.6	1,498.6	1,149.3	1,715.2	2,205.0	1,306.0	1,509.4	1,375.6

Day	September		October		November		December	
	MS-01	MP-01	MS-01	MP-01	MS-01	MP-01	MS-01	MP-01
1	59.3	34.8	54.1	87.1	46.3	34.8	76.7	33.7
2	63.9	69.7	53.8	69.7	50.5	52.2	55.5	29.1
3	53.6	34.8	54.9	69.7	52.1	34.8	33.0	26.0
4	36.1	87.1	48.6	52.2	78.6	52.2	34.2	29.4
5	63.0	17.4	57.5	69.7	72.4	17.4	64.7	30.0
6	61.1	17.4	55.3	52.2	54.9	34.8	69.4	34.6
7	61.1	69.7	49.2	52.2	50.5	17.4	48.2	31.1
8	38.8	52.2	43.3	17.4	50.5	34.8	63.4	27.4
9	53.6	34.8	50.1	34.8	43.9	17.4	67.0	31.4
10	61.4	52.2	48.1	34.8	71.7	17.4	48.0	36.7
11	64.2	52.2	44.3	52.2	70.0	17.4	48.3	25.4
12	48.							



TABLE 2.6

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
LOCATION OF TEMPORARY AND PERMANENT STORAGE AREAS FOR WASTES

Description	UTM Coordinates (NAD83)		Latitude	Longitude
	Easting	Northing		
	(m)	(m)		
Milne Port				
MP-HWB-1	503,869	7,976,308	71° 53' 12.4"	80° 53' 18.6"
MP-HWB-2	503,730	7,975,972	71° 53' 01.6"	80° 53' 33.1"
MP-HWB-3	503,543	7,975,959	71° 53' 01.2"	80° 53' 52.5"
MP-HWB-4	503,569	7,975,954	71° 53' 01.0"	80° 53' 49.8"
Milne Port Landfarm Facility (including Contaminated Snow Containment Berm)	503,751	7,975,570	71° 52' 48.6"	80° 53' 30.9"
Milne Port Waste Stabilisation Pond (PWSP - MP-01a)	503,625	7,976,015	71° 53' 03.0"	80° 53' 44.0"
Mary River Mine Site				
MS-HWB-1	558,170	7,914,598	71° 19' 35.5"	79° 22' 19.2"
MS-HWB-2	558,200	7,914,585	71° 19' 35.1"	79° 22' 16.2"
MS-HWB-3	558,283	7,914,563	71° 19' 34.3"	79° 22' 08.0"
MS-HWB-4	558,295	7,914,551	71° 19' 33.9"	79° 22' 06.8"
MS-HWB-5	558,161	7,914,580	71° 19' 34.9"	79° 22' 20.1"
MS-HWB-6	558,512	7,914,710	71° 19' 38.8"	79° 21' 44.5"
MS-HWB-7	558,284	7,914,449	71° 19' 30.6"	79° 22' 08.1"
Mine Site Landfill	560,879	7,912,513	71° 18' 25.9"	79° 17' 51.8"
Exploration Camp Polishing Waste Stabilization Ponds (PWSP - MS-MRY-4a, b, c)	558,470	7,914,237	71° 19' 23.6"	79° 21' 50.0"
Mid-Rail				
Temporary hazardous waste and barrel fuel storage area	595,660	7,876,369	70° 58' 19"	78° 22' 13"
Steensby Port				
Temporary hazardous waste and barrel fuel storage area	594,679	7,800,514	70° 17' 35"	78° 29' 01"
Drilling Activities				
No storage areas for wastes were created for the 2016 drilling program				

Note: Refer to Figures 1.3 and 1.5 for locations of waste facilities at the Milne Port and the Mine Site

TABLE 2.7

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
MONTHLY AND ANNUAL QUANTITIES OF WASTE DISPOSED IN NON-HAZARDOUS
LANDFILL FACILITY

Quarter	Month and Year	Volume of Waste Deposited in Landfill (m³)	Comments
Q1	January 2016	357	Quarterly survey conducted on April 4, 2016.
	February 2016	357	
	March 2016	357	
Q2	April 2016	443	Quarterly survey conducted on August 6, 2016
	May 2016	443	
	June 2016	443	
Q3	July 2016	210	Quarterly survey conducted on October 2, 2016
	August 2016	210	
	September 2016	210	
Q4	October 2016	542	Quarterly survey conducted on January 1, 2017.
	November 2016	542	
	December 2016	542	
Cumulative Total Volume for 2016 : 4656 m³			

Note: Monthly volumes are calculated based on quarterly surveys of surfaces using methods agreed to with the QIA.

TABLE 2.8

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
MONTHLY AND ANNUAL QUANTITIES OF HYDROCARBON IMPACTED SOIL, WATER AND SNOW
DISPOSED AT LANDFARM FACILITY

Date	Soil Deposited in Landfarm (m ³) ¹	Water Deposited in Contaminated Snow Containment Berm (m ³) ²	Comments
Jan-16	3.0	31.8	
Feb-16	3.0	31.8	
Mar-16	3.0	31.8	
Apr-16	3.0	31.8	
May-16	3.0	31.8	
Jun-16	3.0	31.8	
Jul-16	3.0	31.8	
Aug-16	3.0	311.8	280 m ³ originated from Milne Port Tank Farm
Sep-16	3.0	31.8	
Oct-16	3.0	31.8	
Nov-16	3.0	31.8	
Dec-16	3.0	31.8	
2016 Total	36	662	

Note:

Volume of water treated and discharged from contaminated snow containment facility provided in Table 2.3

Water deposited in snow dump facility originated from facility sumps, except where noted

¹ Estimated based on spill frequency and Project activities in 2016.

² Snow deposited during winter months recorded in water equivalent cubic meters.

TABLE 2.9

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
MONTHLY AND ANNUAL QUANTITIES OF WASTE ROCK GENERATED AND USED OR DISPOSED OF - DEPOSIT NO. 1

Month and Year	Total NPAG Waste Rock Used for Construction Purposes (T)	Total NPAG Waste Rock Deposited in Waste Rock Dump (T)	Total PAG Waste Rock Deposited in Waste Rock Dump (T)	Total Waste Rock Generated (T)
Jan-16	25,200	56,790	16,470	98,460
Feb-16	106,380	68,490	45,720	220,590
Mar-16	84,780	64,800	6,120	155,700
Apr-16	65,838	86,430	59,496	211,764
May-16	188,684	44,027	14,118	246,829
Jun-16	49,079	16,146	0	65,225
Jul-16	24,414	30,646	23,010	78,070
Aug-16	13,104	62,244	24,234	99,582
Sep-16	37,806	33,977	858	72,641
Oct-16	11,700	102,288	45,084	159,072
Nov-16	7,494	107,122	22,230	136,846
Dec-16	936	64,662	12,246	77,844
Cumulative Total for 2016 (T)	615,415	737,622	269,586	1,622,623

Notes:

NPAG = Non-Potentially Acid Generating

PAG = Potentially Acid Generating

T = Metric Tonnes

Total quantities of waste rock excludes broken waste rock stored in-pit at the end of December 2016.



TABLE 3.1
BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
SUMMARY OF UNAUTHORIZED DISCHARGES

Date of Occurrence	Quantity (L)	Product Spilled	Approximate Location	Proximity to Water body?	Spill Line ID No.	Engineered Lined Facility
6-Jan-16	120	Gear/Lube oil	17 W 561662 7913179	>150 m	16-006	No
26-Feb-16	120	Fuel - Diesel	17 W 503879 7976063	> 200 m	16-056	No
1-Mar-16	300	Gear/Lube oil	17 W 561684 7913147	> 100 m	16-063	No
3-Mar-16	100	Grey Water	17 W 561353 7913349	> 100 m	16-065	No
4-Apr-16	140	Engine Oil	17 W 558283 7914563	> 100 m	16-109	Yes
3-May-16	300	Fuel - Diesel	17 W 503714 7976179	> 200 m	16-149	Yes
7-May-16	-	Sediment	Sheardown Lake and Tributary	-	15-158	No
10-May-16	250	Fuel - Diesel	17 W 521762 7949583	> 100 m	16-159	No
17-May-16	-	Sediment	Camp Lake and Tributary	-	16-176	No
20-May-16	-	Sediment	Sheardown Lake and Tributary	-	16-181	No
26-May-16	1000	Waste Oil	17 W 558314 7914506	> 500 m	16-195	Yes
29-May-16	-	Sediment	Camp Lake and Tributary	-	16-198	No
31-May-16	-	Sediment	Water Bodies along Tote Road	-	16-202 ¹	No
6-Jun-16	1000	Grey Water	17 W 561353 7913349	> 100 m	16-210	No
16-Jul-16	200	Hydraulic Oil	17 W 563249 7914665	> 500 m	16-264	No
2-Aug-16	155000	Fuel - Diesel	17 W 503712 7976182	> 200 m	16-283	Yes
26-Aug-16	1500	Grey Water	17 W 561353 7913349	> 100 m	16-315	No
06-Sep-16	2500	Sewage (Untreated)	17 W 561325 7913254	> 100 m	16-327	No
12-Sep-16	200	Hydraulic Oil	17 W 503298 7976333	> 100 m	16-338	Yes
09-Oct-16	1000	Grey Water	17 W 561353 7913349	> 100 m	16-374	No
12-Oct-16	300	Sewage (Untreated)	17 W 561327 7913431	> 100 m	16-377	No
14-Nov-16	500	Grey Water	17 W 561353 7913349	> 100 m	16-403	No
03-Dec-16	1	Gear/Lube oil	17 W 542310 7922176	0 m	16-414	No
27-Dec-16	150	Sewage (Untreated)	17 W 561325 7913254	> 100 m	16-434	No

¹ Additional sedimentation events along the Tote Road were reported as an update to Spill Report No. 16-202 on June 19, 2016.

TABLE 5.1

**BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT**

**2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
WATER LICENCE WATER QUALITY MONITORING LOCATIONS**

Monitoring Station	Description	UTM Coordinates (NAD83)		Latitude	Longitude	Status in 2016
		Easting (m)	Northing (m)			
Milne Port Site						
MP-MRY-2	Fresh Water Intake at Philips Creek (Summer)	514,503	7,964,579	71° 46' 52" N	80° 35' 4" W	Active
MP-MRY-3	Fresh Water Intake from Km 32 Lake (Winter)	521,547	7,953,735	71° 41' 00" N	80° 23' 09" W	Active
MP-01	Milne Port Sewage Treatment Facilities (discharge into ditch prior to ocean)	503,209	7,976,485	71° 53' 18" N	80° 54' 27" W	Active
MP-01a	Milne Port Waste Stabilisation Pond (PWSP)	503,625	7,976,015	71° 53' 03" N	80° 53' 44" W	Active
MP-03	Milne Port Bulk Fuel Storage Facility Stormwater	503,638	7,976,272	71° 52' 11" N	80° 53' 43" W	Active
MP-04	Milne Port Landfarm Facility Storm Water	503,710	7,975,574	71° 52' 49" N	80° 53' 35" W	Active
MP-MRY-04	Milne Exploration Phase Sewage Treatment Facilities	503,462	7,975,764	71° 52' 55" N	80° 54" 01" W	Inactive (Decommissioned)
MP-MRY-04a	Milne Exploration Phase Sewage PWSP	503,344	7,976,118	71° 53' 06" N	80° 54' 13" W	Inactive (Decommissioned)
MP-05	Milne Port Ore Stockpile Sedimentation Pond (East)	503,469	7,976,383	71° 53' 15" N	80° 54' 00" W	Active
MP-06	Milne Port Ore Stockpile Sedimentation Pond (West)	503,125	7,976,364	71° 53' 14" N	80° 54' 36" W	Active
MP-MRY-7	Milne Exploration Phase Bladder Farm Fuel Storage Facility Storm water	503,309	7,976,097	71° 53' 06" N	80° 54' 17" W	Inactive (Decommissioned)
MP-MRY-12	Bulk Sample Stockpile Area Seepage	503,357	7,976,453	71° 53' 17" N	80° 54' 11" W	Inactive
MP-C-A	Surface discharge downstream of construction area at Milne Port	503,214	7,976,483	71° 53' 18" N	80° 54' 27" W	Inactive
MP-C-B		503,191	7,975,396	71° 52' 43" N	80° 54' 29" W	Active
MP-C-B01		503,242	7,975,558	71° 52' 48" N	80° 54' 24" W	Active
MP-C-C		503,436	7,975,427	71° 52' 44" N	80° 54' 04" W	Inactive
MP-C-D		503,651	7,976,363	71° 53' 14" N	80° 53' 41" W	Inactive
MP-C-E		503,736	7,976,346	71° 53' 14" N	80° 53' 32" W	Active
MP-C-F		503,922	7,976,304	71° 53' 12" N	80° 53' 13" W	Active
MP-C-G		502,939	7,976,238	71° 53' 10" N	80° 54' 55" W	Inactive
MP-C-H		504,113	7,976,509	71° 53' 19" N	80° 52' 53" W	Active
MP-Q1-01	Surface Runoff and/or Discharge Quarries	503,828	7,975,062	71° 52' 32" N	80° 53' 23" W	Active
MP-Q1-02		503,811	7,975,272	71° 52' 39" N	80° 53' 25" W	Active
Mary River Mine Site						
MS-MRY-1	Fresh Water Intake from Camp Lake	557,793	7,914,684	71° 19' 38.6" N	79° 22' 57" W	Active
MS-01	Mine Site Sewage Treatment Facilities	561,322	7,913,257	71° 18' 49.4" N	79° 17' 5.6" W	Active
MS-02	Mine Site Maintenance Shop Oily Water WWTF (Truck Wash)	561,638	7,913,222	71° 18' 48" N	79° 16' 34" W	Active (no discharge to receiving environment)
MS-03	Mine Site Bulk Fuel Storage Facility Stormwater	561,258	7,913,304	71° 18' 51" N	79° 17' 12" W	Active (no discharge to receiving environment)
MS-MRY-4	Exploration Camp Sewage Treatment Facility (used as holding tank for Weatherhaven Camp)	558,141	7,914,427	71° 19' 30" N	79° 22' 22.6" W	Inactive (used as holding tank)

TABLE 5.1

**BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT**

**2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
WATER LICENCE WATER QUALITY MONITORING LOCATIONS**

Monitoring Station	Description	UTM Coordinates (NAD83)		Latitude	Longitude	Status in 2016
		Easting (m)	Northing (m)			
MS-MRY-4a	Exploration Camp Polishing Waste Stabilization Ponds (PWSP)	558,470	7,914,237	71° 19' 23.6" N	79° 21' 50" W	Active
MS-MRY-6	Exploration Camp Bulk Fuel Storage Facility (Bladder Farm) Stormwater	558,186	7,914,780	71° 19' 41" N	79° 22' 17" W	Active
MS-06	Ore Stockpile Pond Stormwater (Crusher Pad)	561,475	7,913,000	71° 18' 41" N	79° 16' 51" W	Active
MS-08	Waste Rock Stockpile West Pond	563,492	7,916,273	71° 20' 25" N	79° 13' 18" W	Active
MS-MRY-9	Bulk Sample Open Pit - Surface water drainage (to become inactive in future)	563,246	7,914,632	71° 19' 32" N	79° 13' 48" W	Inactive (no flow)
MS-MRY-10	Bulk Sample Weathered Ore Stockpile - Downstream surface water drainage (to become inactive in the future)	563,488	7,915,197	71° 19' 50" N	79° 13' 22" W	Inactive (no flow)
MS-MRY-11	Bulk Sample Processing - Downstream surface water discharge (to become inactive in the future)	560,690	7,913,350	71° 18' 53" N	79° 18' 09" W	Inactive (no flow)
MS-MRY-13a & MS-MRY-13b	Non-Hazardous Landfill Facility - Downstream surface water drainage	13a: 560,754 13b: 560,642	13a: 7,912,484 13b: 7,912,527	13a: 71° 18' 25" N 13b: 71° 18'26.5" N	13a: 79° 18' 5" W 13b: 79° 18' 16.1" W	Active
MS-C-A	Surface discharge downstream of construction area at Mine Site	561,263	7,913,571	71° 19' 00" N	79° 17' 11" W	Active
MS-C-B		561,454	7,913,537	71° 18' 58" N	79° 16' 52" W	Active
MS-C-C		561,110	7,913,199	71° 18' 48" N	79° 17' 27" W	Active
MS-C-D		561,008	7,913,280	71° 18' 50" N	79° 17' 37" W	Active
MS-C-E		560,980	7,913,388	71° 18' 54" N	79° 17' 40" W	Active
MS-C-F		561,797	7,913,278	71° 18' 49" N	79° 16' 17" W	Active
MS-C-G		561,813	7,911,830	71° 18' 03" N	79° 16' 20" W	Active
MS-C-H		561,162	7,912,067	71° 18' 11" N	79° 17' 25" W	Active
MQ-C-A	Surface Runoff and/or Discharge Quarries	559,489	7,914,408	71° 19' 28" N	79° 20' 07" W	Active
MQ-C-B		560,076	7,913,888	71° 19' 11" N	79° 19' 09" W	Active
MQ-C-D		559,422	7,914,223	71° 19' 23" N	79° 20' 14" W	Active
MQ-C-E		563,351	7,912,902	71° 18' 36" N	79° 13' 42" W	Active

Notes:

Monitoring Station names beginning with MP-Q and MQ-C correspond to QIA Quarry Lease and Quarry Management Plans

The locations of the following Monitoring Stations have not been established at this stage of construction:

MP-02	Milne Port Maintenance Shop Oily Water (WWTF)
MS-01a	Mine Site Polishing/Waste Stabilization Pond (PWSP)
MS-04	Mine Site Fuel Unloading Station Stormwater
MS-05	Mine Site Landfarm Facility Stormwater
MS-07	Run of Mine Ore Stockpile Pond Stormwater
MS-09	Waste Rock Stockpile East Pond

TABLE 5.2
**BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT**
**2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATIONS**

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
MILNE PORT SITE						
L1722585-1	MP-01	13-Jan-16	pH	7.34	pH units	ALS
L1722585-1	MP-01	13-Jan-16	Total Suspended Solids	<2.0	mg/L	ALS
L1722585-1	MP-01	13-Jan-16	N-NH3 (Ammonia)	<0.050	mg/L	ALS
L1722585-1	MP-01	13-Jan-16	Total Kjeldahl Nitrogen	0.77	mg/L	ALS
L1722585-1	MP-01	13-Jan-16	Total Phosphorus	17.1	mg/L	ALS
L1722585-1	MP-01	13-Jan-16	Faecal Coliforms	0	CFU/100 mL	ALS
L1722585-1	MP-01	13-Jan-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1722585-1	MP-01	13-Jan-16	Oil & Grease - Total	<2.0	mg/L	ALS
MARY RIVER MINE SITE						
L1722583-1	MS-01	13-Jan-16	pH	7.15	pH units	ALS
L1722583-1	MS-01	13-Jan-16	Total Suspended Solids	3.6	mg/L	ALS
L1722583-1	MS-01	13-Jan-16	N-NH3 (Ammonia)	0.084	mg/L	ALS
L1722583-1	MS-01	13-Jan-16	Total Kjeldahl Nitrogen	1.61	mg/L	ALS
L1722583-1	MS-01	13-Jan-16	Total Phosphorus	0.647	mg/L	ALS
L1722583-1	MS-01	13-Jan-16	Faecal Coliforms	4	CFU/100 mL	ALS
L1722583-1	MS-01	13-Jan-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1722583-1	MS-01	13-Jan-16	Oil & Grease - Total	<2.0	mg/L	ALS
MILNE PORT SITE						
L1737433-1	MP-01	23-Feb-16	pH	7.53	pH units	ALS
L1737433-1	MP-01	23-Feb-16	Total Suspended Solids	3	mg/L	ALS
L1737433-1	MP-01	23-Feb-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1737433-1	MP-01	23-Feb-16	Total Kjeldahl Nitrogen	<0.15	mg/L	ALS
L1737433-1	MP-01	23-Feb-16	Total Phosphorus	13.1	mg/L	ALS
L1737433-1	MP-01	23-Feb-16	Faecal Coliforms	0	CFU/100 mL	ALS
L1737433-1	MP-01	23-Feb-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1737433-1	MP-01	23-Feb-16	Oil & Grease - Total	<2.0	mg/L	ALS
MARY RIVER MINE SITE						
L1737431-1	MS-01	23-Feb-16	pH	7.87	pH units	ALS
L1737431-1	MS-01	23-Feb-16	Total Suspended Solids	<2.0	mg/L	ALS
L1737431-1	MS-01	23-Feb-16	N-NH3 (Ammonia)	0.148	mg/L	ALS
L1737431-1	MS-01	23-Feb-16	Total Kjeldahl Nitrogen	<0.15	mg/L	ALS
L1737431-1	MS-01	23-Feb-16	Total Phosphorus	0.303	mg/L	ALS
L1737431-1	MS-01 (see Note)	23-Feb-16	Faecal Coliforms	1050	CFU/100 mL	ALS
L1737431-1	MS-01	23-Feb-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1737431-1	MS-01	23-Feb-16	Oil & Grease - Total	<2.0	mg/L	ALS
MILNE PORT SITE						
L1740979-1	MP-01	1-Mar-16	pH	7.38	pH units	ALS
L1740979-1	MP-01	1-Mar-16	Total Suspended Solids	5.5	mg/L	ALS
L1740979-1	MP-01	1-Mar-16	N-NH3 (Ammonia)	0.114	mg/L	ALS
L1740979-1	MP-01	1-Mar-16	Total Kjeldahl Nitrogen	<0.15	mg/L	ALS
L1740979-1	MP-01	1-Mar-16	Total Phosphorus	8.95	mg/L	ALS
L1740979-1	MP-01	1-Mar-16	Faecal Coliforms	-	CFU/100 mL	ALS
L1740979-1	MP-01	1-Mar-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1740979-1	MP-01	1-Mar-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1745711-1	MP-01	15-Mar-16	Faecal Coliforms	0	CFU/100 mL	ALS
MARY RIVER MINE SITE						
L1740981-1	MS-01	1-Mar-16	pH	7.19	pH units	ALS
L1740981-1	MS-01	1-Mar-16	Total Suspended Solids	<2.0	mg/L	ALS
L1740981-1	MS-01	1-Mar-16	N-NH3 (Ammonia)	0.056	mg/L	ALS
L1740981-1	MS-01	1-Mar-16	Total Kjeldahl Nitrogen	1.68	mg/L	ALS
L1740981-1	MS-01	1-Mar-16	Total Phosphorus	0.426	mg/L	ALS
L1740981-1	MS-01	1-Mar-16	Faecal Coliforms	-	CFU/100 mL	ALS
L1740981-1	MS-01	1-Mar-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1740981-1	MS-01	1-Mar-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1742800-1	MP-01	8-Mar-16	Faecal Coliforms	1	CFU/100 mL	ALS
MILNE PORT SITE						
L1753081-1	MP-01	5-Apr-16	pH	7.58	pH units	ALS
L1753081-1	MP-01	5-Apr-16	Total Suspended Solids	4	mg/L	ALS
L1753081-1	MP-01	5-Apr-16	N-NH3 (Ammonia)	0.022	mg/L	ALS
L1753081-1	MP-01	5-Apr-16	Total Kjeldahl Nitrogen	0.3	mg/L	ALS
L1753081-1	MP-01	5-Apr-16	Total Phosphorus	9.89	mg/L	ALS
L1753081-1	MP-01	5-Apr-16	Faecal Coliforms	<1	MPN/100mL	ALS
L1753081-1	MP-01	5-Apr-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1753081-1	MP-01	5-Apr-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1753081-3	MP-0101	5-Apr-16	pH	7.53	pH units	ALS
L1753081-3	MP-0101	5-Apr-16	Total Suspended Solids	5.2	mg/L	ALS
L1753081-3	MP-0101	5-Apr-16	N-NH3 (Ammonia)	0.034	mg/L	ALS
L1753081-3	MP-0101	5-Apr-16	Total Kjeldahl Nitrogen	2.35	mg/L	ALS
L1753081-3	MP-0101	5-Apr-16	Total Phosphorus	10	mg/L	ALS
L1753081-3	MP-0101	5-Apr-16	Faecal Coliforms	<1	MPN/100mL	ALS
L1753081-3	MP-0101	5-Apr-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1753081-3	MP-0101	5-Apr-16	Oil & Grease - Total	<2.0	mg/L	ALS
MARY RIVER MINE SITE						
L1753088-1	MS-01	5-Apr-16	pH	7.77	pH units	ALS
L1753088-1	MS-01	5-Apr-16	Total Suspended Solids	<2.0	mg/L	ALS
L1753088-1	MS-01	5-Apr-16	N-NH3 (Ammonia)	0.129	mg/L	ALS
L1753088-1	MS-01	5-Apr-16	Total Kjeldahl Nitrogen	1.24	mg/L	ALS
L1753088-1	MS-01	5-Apr-16	Total Phosphorus	0.505	mg/L	ALS
L1753088-1	MS-01	5-Apr-16	Faecal Coliforms	2	MPN/100mL	ALS
L1753088-1	MS-01	5-Apr-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1753088-1	MS-01	5-Apr-16	Oil & Grease - Total	2.5	mg/L	ALS
L1753088-3	MS-01 DUPLICATE	5-Apr-16	pH	7.79	pH units	ALS
L1753088-3	MS-01 DUPLICATE	5-Apr-16	Total Suspended Solids	2.8	mg/L	ALS
L1753088-3	MS-01 DUPLICATE	5-Apr-16	N-NH3 (Ammonia)	0.126	mg/L	ALS
L1753088-3	MS-01 DUPLICATE	5-Apr-16	Total Kjeldahl Nitrogen	1.4	mg/L	ALS
L1753088-3	MS-01 DUPLICATE	5-Apr-16	Total Phosphorus	0.518	mg/L	ALS
L1753088-3	MS-01 DUPLICATE	5-Apr-16	Faecal Coliforms	3	MPN/100mL	ALS
L1753088-3	MS-01 DUPLICATE	5-Apr-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1753088-3	MS-01 DUPLICATE	5-Apr-16	Oil & Grease - Total	<2.0	mg/L	ALS
MILNE PORT SITE						
L1764355-1	MP-01	3-May-16	pH	7.69	pH units	ALS
L1764355-1	MP-01	3-May-16	Total Suspended Solids	<2.0	mg/L	ALS
L1764355-1	MP-01	3-May-16	N-NH3 (Ammonia)	0.049	mg/L	ALS
L1764355-1	MP-01	3-May-16	Total Kjeldahl Nitrogen	8	mg/L	ALS
L1764355-1	MP-01	3-May-16	Total Phosphorus	10.9	mg/L	ALS
L1764355-1	MP-01	3-May-16	Faecal Coliforms	4	MPN/100mL	ALS
L1764355-1	MP-01	3-May-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1764355-1	MP-01	3-May-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1776289-1	MP-05	31-May-16	pH	7.98	pH units	ALS
L1776289-1	MP-05	31-May-16	Total Suspended Solids	14.5	mg/L	ALS
L1776289-1	MP-05	31-May-16	Total Dissolved Solids	462	mg/L	ALS
L1776289-						

TABLE 5.2

**BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT**

**2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATIONS**

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
L1776289-1	MP-05	31-May-16	Thallium (Total)	0.000020	mg/L	ALS
L1776289-1	MP-05	31-May-16	Uranium (Total)	0.00766	mg/L	ALS
L1776289-1	MP-05	31-May-16	Zinc (Total)	0.0043	mg/L	ALS
L1776289-1	MP-05	31-May-16	Aluminum (Dissolved)	0.0149	mg/L	ALS
L1776289-1	MP-05	31-May-16	Arsenic (Dissolved)	0.00013	mg/L	ALS
L1776289-1	MP-05	31-May-16	Cadmium (Dissolved)	<0.000010	mg/L	ALS
L1776289-1	MP-05	31-May-16	Calcium (Dissolved)	31.9	mg/L	ALS
L1776289-1	MP-05	31-May-16	Copper (Dissolved)	0.00090	mg/L	ALS
L1776289-1	MP-05	31-May-16	Iron (Dissolved)	<0.010	mg/L	ALS
L1776289-1	MP-05	31-May-16	Lead (Dissolved)	<0.000050	mg/L	ALS
L1776289-1	MP-05	31-May-16	Magnesium (Dissolved)	22.9	mg/L	ALS
L1776289-1	MP-05	31-May-16	Manganese (Dissolved)	0.0900	mg/L	ALS
L1776289-1	MP-05	31-May-16	Mercury (Dissolved)	<0.000010	mg/L	ALS
L1776289-1	MP-05	31-May-16	Molybdenum (Dissolved)	0.00366	mg/L	ALS
L1776289-1	MP-05	31-May-16	Nickel (Dissolved)	<0.00050	mg/L	ALS
L1776289-1	MP-05	31-May-16	Potassium (Dissolved)	7.81	mg/L	ALS
L1776289-1	MP-05	31-May-16	Selenium (Dissolved)	0.000214	mg/L	ALS
L1776289-1	MP-05	31-May-16	Sodium (Dissolved)	89.4	mg/L	ALS
L1776289-1	MP-05	31-May-16	Thallium (Dissolved)	0.000010	mg/L	ALS
L1776289-1	MP-05	31-May-16	Uranium (Dissolved)	0.00749	mg/L	ALS
L1776289-1	MP-05	31-May-16	Zinc (Dissolved)	0.0013	mg/L	ALS
L1776289-2	MP-06	31-May-16	pH	7.70	pH units	ALS
L1776289-2	MP-06	31-May-16	Total Suspended Solids	9.2	mg/L	ALS
L1776289-2	MP-06	31-May-16	Total Dissolved Solids	120	mg/L	ALS
L1776289-2	MP-06	31-May-16	Alkalinity - Total (as CaCO ₃)	23	mg/L	ALS
L1776289-2	MP-06	31-May-16	Hardness (as CaCO ₃)	50	mg/L	ALS
L1776289-2	MP-06	31-May-16	Turbidity	51.2	NTU	ALS
L1776289-2	MP-06	31-May-16	Total Kjeldahl Nitrogen	0.25	mg/L	ALS
L1776289-2	MP-06	31-May-16	N-NH ₃ (Ammonia)	0.073	mg/L	ALS
L1776289-2	MP-06	31-May-16	N-NO ₃ (Nitrate)	0.164	mg/L	ALS
L1776289-2	MP-06	31-May-16	Dissolved Organic Carbon (DOC)	1.9	mg/L	ALS
L1776289-2	MP-06	31-May-16	Total Organic Carbon (TOC)	2.4	mg/L	ALS
L1776289-2	MP-06	31-May-16	Total Phosphorus	0.0220	mg/L	ALS
L1776289-2	MP-06	31-May-16	Sulphate	8.68	mg/L	ALS
L1776289-2	MP-06	31-May-16	Fluoride	0.022	mg/L	ALS
L1776289-2	MP-06	31-May-16	Chloride	50.2	mg/L	ALS
L1776289-2	MP-06	31-May-16	Aluminum (Total)	0.920	mg/L	ALS
L1776289-2	MP-06	31-May-16	Arsenic (Total)	0.00014	mg/L	ALS
L1776289-2	MP-06	31-May-16	Cadmium (Total)	0.000026	mg/L	ALS
L1776289-2	MP-06	31-May-16	Calcium (Total)	9.66	mg/L	ALS
L1776289-2	MP-06	31-May-16	Copper (Total)	0.0015	mg/L	ALS
L1776289-2	MP-06	31-May-16	Iron (Total)	1.51	mg/L	ALS
L1776289-2	MP-06	31-May-16	Lead (Total)	0.00053	mg/L	ALS
L1776289-2	MP-06	31-May-16	Magnesium (Total)	6.22	mg/L	ALS
L1776289-2	MP-06	31-May-16	Manganese (Total)	0.0383	mg/L	ALS
L1776289-2	MP-06	31-May-16	Mercury (Total)	<0.000010	mg/L	ALS
L1776289-2	MP-06	31-May-16	Molybdenum (Total)	0.00075	mg/L	ALS
L1776289-2	MP-06	31-May-16	Nickel (Total)	0.0017	mg/L	ALS
L1776289-2	MP-06	31-May-16	Potassium (Total)	2.03	mg/L	ALS
L1776289-2	MP-06	31-May-16	Selenium (Total)	0.000061	mg/L	ALS
L1776289-2	MP-06	31-May-16	Sodium (Total)	23.4	mg/L	ALS
L1776289-2	MP-06	31-May-16	Thallium (Total)	0.000014	mg/L	ALS
L1776289-2	MP-06	31-May-16	Uranium (Total)	0.00179	mg/L	ALS
L1776289-2	MP-06	31-May-16	Zinc (Total)	0.0048	mg/L	ALS
L1776289-2	MP-06	31-May-16	Aluminum (Dissolved)	0.0097	mg/L	ALS
L1776289-2	MP-06	31-May-16	Arsenic (Dissolved)	<0.00010	mg/L	ALS
L1776289-2	MP-06	31-May-16	Cadmium (Dissolved)	0.000019	mg/L	ALS
L1776289-2	MP-06	31-May-16	Calcium (Dissolved)	9.98	mg/L	ALS
L1776289-2	MP-06	31-May-16	Copper (Dissolved)	0.00042	mg/L	ALS
L1776289-2	MP-06	31-May-16	Iron (Dissolved)	<0.010	mg/L	ALS
L1776289-2	MP-06	31-May-16	Lead (Dissolved)	<0.000050	mg/L	ALS
L1776289-2	MP-06	31-May-16	Magnesium (Dissolved)	6.11	mg/L	ALS
L1776289-2	MP-06	31-May-16	Manganese (Dissolved)	<0.00050	mg/L	ALS
L1776289-2	MP-06	31-May-16	Mercury (Dissolved)	<0.000010	mg/L	ALS
L1776289-2	MP-06	31-May-16	Molybdenum (Dissolved)	0.000694	mg/L	ALS
L1776289-2	MP-06	31-May-16	Nickel (Dissolved)	<0.00050	mg/L	ALS
L1776289-2	MP-06	31-May-16	Potassium (Dissolved)	1.83	mg/L	ALS
L1776289-2	MP-06	31-May-16	Selenium (Dissolved)	<0.000050	mg/L	ALS
L1776289-2	MP-06	31-May-16	Sodium (Dissolved)	24.4	mg/L	ALS
L1776289-2	MP-06	31-May-16	Thallium (Dissolved)	<0.000010	mg/L	ALS
L1776289-2	MP-06	31-May-16	Uranium (Dissolved)	0.00121	mg/L	ALS
L1776289-2	MP-06	31-May-16	Zinc (Dissolved)	0.0017	mg/L	ALS
L1776290-1	MP-06-TEMP	31-May-16	pH	8.05	pH units	ALS
L1776290-1	MP-06-TEMP	31-May-16	Total Suspended Solids	8.40	mg/L	ALS
L1772632-1	MP-06-TEMP1	23-May-16	pH	8.17	pH units	ALS
L1772632-1	MP-06-TEMP1	23-May-16	Total Suspended Solids	14.4	mg/L	ALS
L1772632-1	MP-06-TEMP1	23-May-16	Total Dissolved Solids	320	mg/L	ALS
L1772632-1	MP-06-TEMP1	23-May-16	Alkalinity - Total (as CaCO ₃)	96	mg/L	ALS
L1772632-1	MP-06-TEMP1	23-May-16	Hardness (as CaCO ₃)	153	mg/L	ALS
L1772632-1	MP-06-TEMP1	23-May-16	Turbidity	23.3	NTU	ALS
L1772632-1	MP-06-TEMP1	23-May-16	Total Kjeldahl Nitrogen	2.21	mg/L	ALS
L1772632-1	MP-06-TEMP1	23-May-16	N-NH ₃ (Ammonia)	0.775	mg/L	ALS
L1772632-1	MP-06-TEMP1	23-May-16	N-NO ₃ (Nitrate)	0.392	mg/L	ALS
L1772632-1	MP-06-TEMP1	23-May-16	Dissolved Organic Carbon (DOC)	11.5	mg/L	ALS
L1772632-1	MP-06-TEMP1	23-May-16	Total Organic Carbon (TOC)	11.7	mg/L	ALS
L1772632-1	MP-06-TEMP1	23-May-16	Total Phosphorus	0.0300	mg/L	ALS
L1772632-1	MP-06-TEMP1	23-May-16	Sulphate	33.9	mg/L	ALS
L1772632-1	MP-06-TEMP1	23-May-16	Fluoride	0.059	mg/L	ALS
L1772632-1	MP-06-TEMP1	23-May-16	Chloride	84.7	mg/L	ALS
L1772632-1	MP-06-TEMP1	23-May-16	Aluminum (Total)	0.510	mg/L	ALS
L1772632-1	MP-06-TEMP1	23-May-16	Arsenic (Total)	0.00039	mg/L	ALS
L1772632-1	MP-06-TEMP1	23-May-16	Cadmium (Total)	0.000013	mg/L	ALS
L1772632-1	MP-06-TEMP1	23-May-16	Calcium (Total)	38.0	mg/L	ALS
L1772632-1	MP-06-TEMP1	23-May-16	Copper (Total)	0.0019	mg/L	ALS
L1772632-1	MP-06-TEMP1	23-May-16	Iron (Total)	0.686	mg/L	ALS
L1772632-1	MP-06-TEMP1	23-May-16	Lead (Total)	0.00034	mg/L	ALS
L1772632-1	MP-06-TEMP1	23-May-16	Magnesium (Total)	15.4	mg/L	ALS
L1772632-1	MP-06-TEMP1	23-May-16	Manganese (Total)	0.0282	mg/L	ALS
L1772632-1	MP-06-TEMP1	23-May-16	Mercury (Total)	<0.000010	mg/L	ALS

TABLE 5.2
**BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT**
**2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATIONS**

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
L1776290-5	MP-C-B	31-May-16	N-NO3 (Nitrate)	0.240	mg/L	ALS
L1776290-5	MP-C-B	31-May-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1772632-2	MP-C-B01	24-May-16	Conductivity	829	uS/cm	ALS
L1772632-2	MP-C-B01	24-May-16	pH	7.99	pH units	ALS
L1772632-2	MP-C-B01	24-May-16	Total Suspended Solids	28.2	mg/L	ALS
L1772632-2	MP-C-B01	24-May-16	N-NH3 (Ammonia)	0.258	mg/L	ALS
L1772632-2	MP-C-B01	24-May-16	N-NO3 (Nitrate)	0.544	mg/L	ALS
L1772632-2	MP-C-B01	24-May-16	Oil & Grease - Total	<2.0	mg/L	ALS
47809	MP-C-B01	24-May-16	Acute Toxicity*	non-lethal	mortality %	Aquatox
L1776290-3	MP-C-B01	31-May-16	pH	7.92	pH units	ALS
L1776920-3	MP-C-B01	31-May-16	Total Suspended Solids	12.8	mg/L	ALS
L1776290-4	MP-C-B01 (Duplicate)	31-May-16	pH	7.94	pH units	ALS
L1776920-4	MP-C-B01 (Duplicate)	31-May-16	Total Suspended Solids	11.2	mg/L	ALS
MARY RIVER MINE SITE						
L1764350-1	MS-01	3-May-16	pH	7.78	pH units	ALS
L1764350-1	MS-01	3-May-16	Total Suspended Solids	2.5	mg/L	ALS
L1764350-1	MS-01	3-May-16	N-NH3 (Ammonia)	0.251	mg/L	ALS
L1764350-1	MS-01	3-May-16	Total Kjeldahl Nitrogen	9.9	mg/L	ALS
L1764350-1	MS-01	3-May-16	Total Phosphorus	1.02	mg/L	ALS
L1764350-1	MS-01	3-May-16	Faecal Coliforms	2	MPN/100mL	ALS
L1764350-1	MS-01	3-May-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1764350-1	MS-01	3-May-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Hardness (as CaCO3)	64	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	pH	7.55	pH units	ALS
L1772651-1	MS-06 (Pre-Discharge) See Note	24-May-16	Total Suspended Solids	35.1	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Total Dissolved Solids	102	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Turbidity	57.1	NTU	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Alkalinity, Total (as CaCO3)	27	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Ammonia, Total (as N)	0.275	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Chloride (Cl)	5.92	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Fluoride (F)	0.06	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Nitrate (as N)	1.01	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Total Kjeldahl Nitrogen	0.68	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Phosphorus, Total	0.0451	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Sulfate (SO4)	44.6	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Dissolved Organic Carbon	2.6	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Total Organic Carbon	2.2	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Aluminum (Al)-Total	1.8	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Arsenic (As)-Total	0.00019	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Cadmium (Cd)-Total	0.00005	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Calcium (Ca)-Total	11.1	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Copper (Cu)-Total	0.0032	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Iron (Fe)-Total	2.43	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Lead (Pb)-Total	0.00179	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Magnesium (Mg)-Total	10.3	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Manganese (Mn)-Total	0.183	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Mercury (Hg)-Total	<0.000010	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Molybdenum (Mo)-Total	0.00205	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Nickel (Ni)-Total	0.0035	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Potassium (K)-Total	5.17	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Selenium (Se)-Total	0.000176	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Sodium (Na)-Total	2.83	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Thallium (Tl)-Total	0.000026	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Uranium (U)-Total	0.00226	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Zinc (Zn)-Total	0.0051	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Aluminum (Al)-Dissolved	0.0102	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Arsenic (As)-Dissolved	<0.00010	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Cadmium (Cd)-Dissolved	<0.000010	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Calcium (Ca)-Dissolved	10.8	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Copper (Cu)-Dissolved	0.0004	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Iron (Fe)-Dissolved	<0.010	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Lead (Pb)-Dissolved	<0.000050	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Magnesium (Mg)-Dissolved	9.07	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Manganese (Mn)-Dissolved	0.135	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Mercury (Hg)-Dissolved	<0.000010	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Molybdenum (Mo)-Dissolved	0.00193	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Nickel (Ni)-Dissolved	<0.00050	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Potassium (K)-Dissolved	4.72	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Selenium (Se)-Dissolved	0.000205	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Sodium (Na)-Dissolved	2.77	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Thallium (Tl)-Dissolved	<0.000010	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Uranium (U)-Dissolved	0.00121	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Zinc (Zn)-Dissolved	<0.010	mg/L	ALS
L1772651-1	MS-06 (Pre-Discharge)	24-May-16	Radium-226	0.0078	Bq/L	ALS
47808	MS-06 (Pre-Discharge)	24-May-16	Acute Toxicity*	non-lethal	mortality %	Aquatox
L1772655-6	MS-MRY-13A	23-May-16	pH	7.52	pH units	ALS
L1772655-6	MS-MRY-13A	23-May-16	Alkalinity - Total (as CaCO3)	24	mg/L	ALS
L1772655-6	MS-MRY-13A	23-May-16	Conductivity	56.5	uS/cm	ALS
L1772655-6	MS-MRY-13A	23-May-16	Total Suspended Solids	11.5	mg/L	ALS
L1772655-6	MS-MRY-13A	23-May-16	Total Dissolved Solids	47	mg/L	ALS
L1772655-6	MS-MRY-13A	23-May-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1772655-6	MS-MRY-13A	23-May-16	Phenols (4AAP)	0.0017	mg/L	ALS
L1772655-6	MS-MRY-13A	23-May-16	Total Petroleum Hydrocarbons (C6-C50)	<380	ug/L	ALS
L1772655-6	MS-MRY-13A	23-May-16	F1 (C6-C10)	<100	ug/L	ALS
L1772655-6	MS-MRY-13A	23-May-16	F2 (C10-C16)	<100	ug/L	ALS
L1772655-6	MS-MRY-13A	23-May-16	F3 (C16-C34)	<250	ug/L	ALS
L1772655-6	MS-MRY-13A	23-May-16	F4 (C34-C50)	<250	ug/L	ALS
L1772655-6	MS-MRY-13A	23-May-16	Total Organic Carbon (TOC)	3.9	mg/L	ALS
L1772655-6	MS-MRY-13A	23-May-16	Dissolved Organic Carbon (DOC)	5.1	mg/L	ALS
L1772655-6	MS-MRY-13A	23-May-16	Mercury (Hg) - Total	<0.000010	mg/L	ALS
L1772655-6	MS-MRY-13A	23-May-16	Aluminum (Al)-Total	0.0133	mg/L	ALS
L1772655-6	MS-MRY-13A	23-May-16	Antimony (Sb)-Total	0.00011	mg/L	ALS
L1772655-6	MS-MRY-13A	23-May-16	Arsenic (As)-Total	<0.00010	mg/L	ALS
L1772655-6	MS-MRY-13A	23-May-16	Barium (Ba)-Total	0.00322	mg/L	ALS
L1772655-6	MS-MRY-13A	23-May-16	Cadmium (Cd)-Total	<0.000010	mg/L	ALS
L1772655-6	MS-MRY					

TABLE 5.2

**BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT**

**2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATIONS**

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
L1766940-4	MS-C-B	10-May-16	Conductivity	63.0	uS/cm	ALS
L1766940-4	MS-C-B	10-May-16	pH	7.52	pH units	ALS
L1766940-4	MS-C-B	10-May-16	Total Suspended Solids	2.4	mg/L	ALS
L1766940-4	MS-C-B	10-May-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1766940-4	MS-C-B	10-May-16	N-NO3 (Nitrate)	0.328	mg/L	ALS
L1766940-4	MS-C-B	10-May-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1772655-2	MS-C-B	23-May-16	Conductivity	41.4	uS/cm	ALS
L1772655-2	MS-C-B	23-May-16	pH	7.43	pH units	ALS
L1772655-2	MS-C-B	23-May-16	Total Suspended Solids	4.5	mg/L	ALS
L1772655-2	MS-C-B	23-May-16	N-NH3 (Ammonia)	0.025	mg/L	ALS
L1772655-2	MS-C-B	23-May-16	N-NO3 (Nitrate)	0.113	mg/L	ALS
L1772655-2	MS-C-B	23-May-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1776291-9	MS-C-B	31-May-16	pH	7.38	pH units	ALS
L1776291-9	MS-C-B	31-May-16	Total Suspended Solids	<2.0	mg/L	ALS
L1776291-9	MS-C-B	31-May-16	Turbidity	11.8	NTU	ALS
L1772655-3	MS-C-C	23-May-16	Conductivity	313.0	uS/cm	ALS
L1772655-3	MS-C-C	23-May-16	pH	7.88	pH units	ALS
L1772655-3	MS-C-C	23-May-16	Total Suspended Solids	5.2	mg/L	ALS
L1772655-3	MS-C-C	23-May-16	N-NH3 (Ammonia)	0.267	mg/L	ALS
L1772655-3	MS-C-C	23-May-16	N-NO3 (Nitrate)	0.957	mg/L	ALS
L1772655-3	MS-C-C	23-May-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1776291-6	MS-C-C	31-May-16	pH	7.68	pH units	ALS
L1776291-6	MS-C-C	31-May-16	Total Suspended Solids	<2.0	mg/L	ALS
L1776291-6	MS-C-C	31-May-16	Turbidity	0.86	NTU	ALS
L1766940-2	MS-C-D	10-May-16	Conductivity	281	uS/cm	ALS
L1766940-2	MS-C-D	10-May-16	pH	7.95	pH units	ALS
L1766940-2	MS-C-D (see Note)	10-May-16	Total Suspended Solids	39.4	mg/L	ALS
L1766940-2	MS-C-D	10-May-16	N-NH3 (Ammonia)	0.514	mg/L	ALS
L1766940-2	MS-C-D	10-May-16	N-NO3 (Nitrate)	2.08	mg/L	ALS
L1766940-2	MS-C-D	10-May-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1769290-1	MS-C-D	16-May-16	pH	7.61	pH units	ALS
L1769290-1	MS-C-D	16-May-16	Total Suspended Solids	12.8	mg/L	ALS
L1769290-1	MS-C-D	16-May-16	Total Dissolved Solids	40	mg/L	ALS
L1769290-1	MS-C-D	16-May-16	Turbidity	40	NTU	ALS
L1772655-4	MS-C-D	23-May-16	Conductivity	302.0	uS/cm	ALS
L1772655-4	MS-C-D	23-May-16	pH	7.94	pH units	ALS
L1772655-4	MS-C-D	23-May-16	Total Suspended Solids	7.0	mg/L	ALS
L1772655-4	MS-C-D	23-May-16	N-NH3 (Ammonia)	0.313	mg/L	ALS
L1772655-4	MS-C-D	23-May-16	N-NO3 (Nitrate)	0.938	mg/L	ALS
L1772655-4	MS-C-D	23-May-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1776291-5	MS-C-D	31-May-16	pH	7.93	pH units	ALS
L1776291-5	MS-C-D	31-May-16	Total Suspended Solids	9.6	mg/L	ALS
L1776291-5	MS-C-D	31-May-16	Turbidity	30	NTU	ALS
L1766940-3	MS-C-E	10-May-16	Conductivity	149	uS/cm	ALS
L1766940-3	MS-C-E	10-May-16	pH	7.84	pH units	ALS
L1766940-3	MS-C-E	10-May-16	Total Suspended Solids	66.0	mg/L	ALS
L1766940-3	MS-C-E	10-May-16	N-NH3 (Ammonia)	0.134	mg/L	ALS
L1766940-3	MS-C-E	10-May-16	N-NO3 (Nitrate)	0.980	mg/L	ALS
L1766940-3	MS-C-E	10-May-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1769290-2	MS-C-E	16-May-16	pH	7.66	pH units	ALS
L1769290-2	MS-C-E	16-May-16	Total Suspended Solids	16.0	mg/L	ALS
L1769290-2	MS-C-E	16-May-16	Total Dissolved Solids	47	mg/L	ALS
L1769290-2	MS-C-E	16-May-16	Turbidity	50	NTU	ALS
L1772655-5	MS-C-E	23-May-16	Conductivity	162.0	uS/cm	ALS
L1772655-5	MS-C-E	23-May-16	pH	7.93	pH units	ALS
L1772655-5	MS-C-E	23-May-16	Total Suspended Solids	23.8	mg/L	ALS
L1772655-5	MS-C-E	23-May-16	N-NH3 (Ammonia)	0.109	mg/L	ALS
L1772655-5	MS-C-E	23-May-16	N-NO3 (Nitrate)	0.409	mg/L	ALS
L1772655-5	MS-C-E	23-May-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1766940-5	MS-C-H	10-May-16	Conductivity	62.3	uS/cm	ALS
L1766940-5	MS-C-H	10-May-16	pH	7.65	pH units	ALS
L1766940-5	MS-C-H	10-May-16	Total Suspended Solids	<2.0	mg/L	ALS
L1766940-5	MS-C-H	10-May-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1766940-5	MS-C-H	10-May-16	N-NO3 (Nitrate)	0.093	mg/L	ALS
L1766940-5	MS-C-H	10-May-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1776291-10	MS-C-H	31-May-16	pH	7.68	pH units	ALS
L1776291-10	MS-C-H	31-May-16	Total Suspended Solids	<2.0	mg/L	ALS
L1776291-10	MS-C-H	31-May-16	Turbidity	7.08	NTU	ALS
L1776291-2	MQ-C-A	31-May-16	Conductivity	65.2	uS/cm	ALS
L1776291-2	MQ-C-A	31-May-16	pH	7.72	pH units	ALS
L1776291-2	MQ-C-A	31-May-16	Total Suspended Solids	<2.0	mg/L	ALS
L1776291-2	MQ-C-A	31-May-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1776291-2	MQ-C-A	31-May-16	N-NO3 (Nitrate)	0.135	mg/L	ALS
L1776291-2	MQ-C-A	31-May-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1772655-7	MQ-C-B	23-May-16	Conductivity	102.0	uS/cm	ALS
L1772655-7	MQ-C-B	23-May-16	pH	7.70	pH units	ALS
L1772655-7	MQ-C-B (see Note)	23-May-16	Total Suspended Solids	42.9	mg/L	ALS
L1772655-7	MQ-C-B	23-May-16	N-NH3 (Ammonia)	0.399	mg/L	ALS
L1772655-7	MQ-C-B	23-May-16	N-NO3 (Nitrate)	1.090	mg/L	ALS
L1772655-7	MQ-C-B	23-May-16	Oil & Grease - Total	<2.0	mg/L	ALS
47807	MQ-C-B	23-May-16	Acute Toxicity*	non-lethal	mortality %	Aquatox
L1775123-1	MQ-C-B	28-May-16	pH	7.6	pH units	ALS
L1775123-1	MQ-C-B (see Note)	28-May-16	Total Suspended Solids	47.0	mg/L	ALS
L1776291-3	MQ-C-B	31-May-16	pH	7.66	pH units	ALS
L1776291-3	MQ-C-B	31-May-16	Total Suspended Solids	22.8	mg/L	ALS
L1776291-3	MQ-C-B	31-May-16	Turbidity	47.1	NTU	ALS
L1776291-4	MQ-C-B (Duplicate)	31-May-16	pH	7.68	pH units	ALS
L1776291-4	MQ-C-B (Duplicate)	31-May-16	Total Suspended Solids	24	mg/L	ALS
L1776291-4	MQ-C-B (Duplicate)	31-May-16	Turbidity	48.5	NTU	ALS
L1772655-8	MQ-C-D	23-May-16	Conductivity	96.3	uS/cm	ALS
L1772655-8	MQ-C-D	23-May-16	pH	7.70	pH units	ALS
L1772655-8	MQ-C-D	23-May-16	Total Suspended Solids	9.2	mg/L	ALS
L1772655-8	MQ-C-D	23-May-16	N-NH3 (Ammonia)	0.158	mg/L	ALS
L1772655-8	MQ-C-D	23-May-16	N-NO3 (Nitrate)	0.341	mg/L	ALS
L1772655-8	MQ-C-D	23-May-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1772655-9	MQ-C-D (Duplicate)	23-May-16	Conductivity	95.5	uS/cm	ALS
L1772655-9	MQ-C-D (Duplicate)	23-May-16	pH	7.70	pH units	ALS
L1772655-9	MQ-C-D (Duplicate)	23-May-16	Total Suspended Solids	10.0	mg/L	ALS
L1772655-9	MQ-C-D (Duplicate)	23-May-16	N-NH3 (Ammonia)	0.147	mg/L	ALS
L1772655-9	MQ-C-D (Duplicate)	23-May-16	N-NO3 (Nitrate)	0.343	mg/L	ALS
L1772655-9	MQ-C-D (Duplicate)	23-May-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1776291-1	MQ-C-D	31-May-16	pH	7.9	pH units	ALS
L1776291-1	MQ-C-D	31-May-16	Total Suspended Solids	15.6	mg/L	ALS
L1776291-1	MQ-C-D	31-May-16	Turbidity	46	NTU	ALS
MILNE PORT SITE						

TABLE 5.2

**BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT**

**2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATIONS**

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
L1791429-1	MP-03	28-Jun-16	F3 (C16-C34)	<250	ug/L	ALS
L1791429-1	MP-03	28-Jun-16	F4 (C34-C50)	<250	ug/L	ALS
L1791429-1	MP-03	28-Jun-16	Total Hydrocarbons (C6-C50)	<380	ug/L	ALS
L1784066-7	MP-05	13-Jun-16	Hardness (as CaCO3)	235	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	pH	8.17	pH units	ALS
L1784066-7	MP-05	13-Jun-16	Total Suspended Solids (see Note 1)	20	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Total Dissolved Solids	549	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Turbidity	30.5	NTU	ALS
L1784066-7	MP-05	13-Jun-16	Alkalinity - Total (as CaCO3)	95	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	N-NH3 (Ammonia)	0.176	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Chloride	184	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Fluoride	0.06	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	N-NO3 (Nitrate)	2.03	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Total Kjeldahl Nitrogen	1.01	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Total Phosphorus	0.0432	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Sulphate	85.9	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Dissolved Organic Carbon (DOC)	5.4	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Total Organic Carbon (TOC)	5.6	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Aluminum (Total)	0.715	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Arsenic (Total)	0.00033	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Cadmium (Total)	<0.000010	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Calcium (Total)	45.2	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Copper (Total)	0.017	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Iron (Total)	0.565	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Lead (Total)	0.00054	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Magnesium (Total)	27.4	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Manganese (Total)	0.178	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Mercury (Total)	<0.000010	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Molybdenum (Total)	0.00465	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Nickel (Total)	0.012	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Potassium (Total)	8.44	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Selenium (Total)	0.000307	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Sodium (Total)	76.2	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Thallium (Total)	0.000019	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Uranium (Total)	0.0249	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Zinc (Total)	0.012	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Aluminum (Dissolved)	0.0143	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Arsenic (Dissolved)	0.00025	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Cadmium (Dissolved)	<0.000010	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Calcium (Dissolved)	47	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Copper (Dissolved)	0.00119	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Iron (Dissolved)	<0.010	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Lead (Dissolved)	<0.000050	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Magnesium (Dissolved)	28.5	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Manganese (Dissolved)	0.147	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Mercury (Dissolved)	<0.000010	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Molybdenum (Dissolved)	0.00449	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Nickel (Dissolved)	0.00063	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Potassium (Dissolved)	8.62	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Selenium (Dissolved)	0.000375	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Sodium (Dissolved)	80.8	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Thallium (Dissolved)	0.000012	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Uranium (Dissolved)	0.0255	mg/L	ALS
L1784066-7	MP-05	13-Jun-16	Zinc (Dissolved)	0.007	mg/L	ALS
48040	MP-05	14-Jun-16	Acute Toxicity*	non-lethal	mortality %	Aquatox
L1779754-7	MP-06	7-Jun-16	Hardness (as CaCO3)	74	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	pH	7.95	pH units	ALS
L1779754-7	MP-06	7-Jun-16	Total Suspended Solids	17.6	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Total Dissolved Solids	176	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Turbidity	71.1	NTU	ALS
L1779754-7	MP-06	7-Jun-16	Alkalinity - Total (as CaCO3)	43	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	N-NH3 (Ammonia)	0.044	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Chloride	59.8	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Fluoride	0.029	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	N-NO3 (Nitrate)	0.331	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Total Kjeldahl Nitrogen	0.31	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Total Phosphorus	0.039	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Sulphate	16.4	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Dissolved Organic Carbon (DOC)	2.9	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Total Organic Carbon (TOC)	3.1	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Aluminum (Total)	1	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Arsenic (Total)	0.00026	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Cadmium (Total)	<0.000010	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Calcium (Total)	16.1	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Copper (Total)	0.0018	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Iron (Total)	1.29	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Lead (Total)	0.00063	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Magnesium (Total)	9.12	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Manganese (Total)	0.0356	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Mercury (Total)	<0.000010	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Molybdenum (Total)	0.00129	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Nickel (Total)	0.0018	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Potassium (Total)	2.69	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Selenium (Total)	0.000075	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Sodium (Total)	29.6	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Thallium (Total)	0.000019	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Uranium (Total)	0.0021	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Zinc (Total)	0.0041	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Aluminum (Dissolved)	0.0133	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Arsenic (Dissolved)	0.0001	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Cadmium (Dissolved)	<0.000010	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Calcium (Dissolved)	15.7	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Copper (Dissolved)	0.00053	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Iron (Dissolved)	<0.010	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Lead (Dissolved)	<0.000050	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Magnesium (Dissolved)	8.54	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Manganese (Dissolved)	0.00532	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Mercury (Dissolved)	<0.000010	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Molybdenum (Dissolved)	0.00144	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Nickel (Dissolved)	<0.00050	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Potassium (Dissolved)	2.22	mg/L	ALS
L1779754-7	MP-06	7-Jun-16	Selenium (Dissolved)	0.0		

TABLE 5.2

**BAFFINLAND IRON MINES CORPORATION
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WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATIONS**

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
L1781993-1	MP-06	10-Jun-16	Molybdenum (Total)	0.00166	mg/L	ALS
L1781993-1	MP-06	10-Jun-16	Nickel (Total)	0.0016	mg/L	ALS
L1781993-1	MP-06	10-Jun-16	Potassium (Total)	2.78	mg/L	ALS
L1781993-1	MP-06	10-Jun-16	Selenium (Total)	0.000102	mg/L	ALS
L1781993-1	MP-06	10-Jun-16	Sodium (Total)	31.1	mg/L	ALS
L1781993-1	MP-06	10-Jun-16	Thallium (Total)	0.000015	mg/L	ALS
L1781993-1	MP-06	10-Jun-16	Uranium (Total)	0.00209	mg/L	ALS
L1781993-1	MP-06	10-Jun-16	Zinc (Total)	0.0044	mg/L	ALS
L1781993-1	MP-06	10-Jun-16	Aluminum (Dissolved)	0.0137	mg/L	ALS
L1781993-1	MP-06	10-Jun-16	Arsenic (Dissolved)	<0.00010	mg/L	ALS
L1781993-1	MP-06	10-Jun-16	Cadmium (Dissolved)	<0.000010	mg/L	ALS
L1781993-1	MP-06	10-Jun-16	Calcium (Dissolved)	18.6	mg/L	ALS
L1781993-1	MP-06	10-Jun-16	Copper (Dissolved)	0.0007	mg/L	ALS
L1781993-1	MP-06	10-Jun-16	Iron (Dissolved)	<0.010	mg/L	ALS
L1781993-1	MP-06	10-Jun-16	Lead (Dissolved)	<0.000050	mg/L	ALS
L1781993-1	MP-06	10-Jun-16	Magnesium (Dissolved)	9.4	mg/L	ALS
L1781993-1	MP-06	10-Jun-16	Manganese (Dissolved)	0.00618	mg/L	ALS
L1781993-1	MP-06	10-Jun-16	Mercury (Dissolved)	<0.000010	mg/L	ALS
L1781993-1	MP-06	10-Jun-16	Molybdenum (Dissolved)	0.00164	mg/L	ALS
L1781993-1	MP-06	10-Jun-16	Nickel (Dissolved)	<0.00050	mg/L	ALS
L1781993-1	MP-06	10-Jun-16	Potassium (Dissolved)	2.46	mg/L	ALS
L1781993-1	MP-06	10-Jun-16	Selenium (Dissolved)	0.000108	mg/L	ALS
L1781993-1	MP-06	10-Jun-16	Sodium (Dissolved)	32.6	mg/L	ALS
L1781993-1	MP-06	10-Jun-16	Thallium (Dissolved)	<0.000010	mg/L	ALS
L1781993-1	MP-06	10-Jun-16	Uranium (Dissolved)	0.00183	mg/L	ALS
L1781993-1	MP-06	10-Jun-16	Zinc (Dissolved)	0.0024	mg/L	ALS
L1779754-1	MP-06 TEMP	7-Jun-16	Conductivity	528	uS/cm	ALS
L1779754-1	MP-06 TEMP	7-Jun-16	pH	8.14	pH units	ALS
L1779754-1	MP-06 TEMP	7-Jun-16	Total Suspended Solids	5	mg/L	ALS
L1779754-1	MP-06 TEMP	7-Jun-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1779754-1	MP-06 TEMP	7-Jun-16	N-NO3 (Nitrate)	0.226	mg/L	ALS
L1779754-1	MP-06 TEMP	7-Jun-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1787792-2	MP-06 TEMP	20-Jun-16	Conductivity	394	uS/cm	ALS
L1787792-2	MP-06 TEMP	20-Jun-16	pH	8.19	pH units	ALS
L1787792-2	MP-06 TEMP	20-Jun-16	Total Suspended Solids	2	mg/L	ALS
L1787792-2	MP-06 TEMP	20-Jun-16	N-NH3 (Ammonia)	0.045	mg/L	ALS
L1787792-2	MP-06 TEMP	20-Jun-16	N-NO3 (Nitrate)	1.05	mg/L	ALS
L1787792-2	MP-06 TEMP	20-Jun-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1779754-2	MP-06 TEMP1	7-Jun-16	Conductivity	655	uS/cm	ALS
L1779754-2	MP-06 TEMP1	7-Jun-16	pH	8.24	pH units	ALS
L1779754-2	MP-06 TEMP1	7-Jun-16	Total Suspended Solids	5.4	mg/L	ALS
L1779754-2	MP-06 TEMP1	7-Jun-16	N-NH3 (Ammonia)	0.054	mg/L	ALS
L1779754-2	MP-06 TEMP1	7-Jun-16	N-NO3 (Nitrate)	0.275	mg/L	ALS
L1779754-2	MP-06 TEMP1	7-Jun-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1779754-4	MP-C-B	7-Jun-16	Conductivity	438	uS/cm	ALS
L1779754-4	MP-C-B	7-Jun-16	pH	8.26	pH units	ALS
L1779754-4	MP-C-B	7-Jun-16	Total Suspended Solids (see Note 2)	15.6	mg/L	ALS
L1779754-4	MP-C-B	7-Jun-16	N-NH3 (Ammonia)	0.027	mg/L	ALS
L1779754-4	MP-C-B	7-Jun-16	N-NO3 (Nitrate)	0.162	mg/L	ALS
L1779754-4	MP-C-B	7-Jun-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1779754-5	MP-C-B (Duplicate)	7-Jun-16	Conductivity	438	uS/cm	ALS
L1779754-5	MP-C-B (Duplicate)	7-Jun-16	pH	8.26	pH units	ALS
L1779754-5	MP-C-B (Duplicate)	7-Jun-16	Total Suspended Solids (see Note 2)	12.1	mg/L	ALS
L1779754-5	MP-C-B (Duplicate)	7-Jun-16	N-NH3 (Ammonia)	0.028	mg/L	ALS
L1779754-5	MP-C-B (Duplicate)	7-Jun-16	N-NO3 (Nitrate)	0.162	mg/L	ALS
L1779754-5	MP-C-B (Duplicate)	7-Jun-16	Oil & Grease - Total	<4.0	mg/L	ALS
L1779754-3	MP-C-B01	7-Jun-16	Conductivity	376	uS/cm	ALS
L1779754-3	MP-C-B01	7-Jun-16	pH	8.12	pH units	ALS
L1779754-3	MP-C-B01	7-Jun-16	Total Suspended Solids	26.4	mg/L	ALS
L1779754-3	MP-C-B01	7-Jun-16	N-NH3 (Ammonia)	0.143	mg/L	ALS
L1779754-3	MP-C-B01	7-Jun-16	N-NO3 (Nitrate)	0.22	mg/L	ALS
L1779754-3	MP-C-B01	7-Jun-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1787792-3	MP-C-B01	20-Jun-16	Conductivity	392	uS/cm	ALS
L1787792-3	MP-C-B01	20-Jun-16	pH	8.12	pH units	ALS
L1787792-3	MP-C-B01	20-Jun-16	Total Suspended Solids	13.1	mg/L	ALS
L1787792-3	MP-C-B01	20-Jun-16	N-NH3 (Ammonia)	0.172	mg/L	ALS
L1787792-3	MP-C-B01	20-Jun-16	N-NO3 (Nitrate)	1.16	mg/L	ALS
L1787792-3	MP-C-B01	20-Jun-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1787792-8	MP-C-B01 (Travel Blank)	20-Jun-16	Conductivity	<3.0	uS/cm	ALS
L1787792-8	MP-C-B01 (Travel Blank)	20-Jun-16	pH	6.83	pH units	ALS
L1787792-8	MP-C-B01 (Travel Blank)	20-Jun-16	Total Suspended Solids	<2.0	mg/L	ALS
L1787792-8	MP-C-B01 (Travel Blank)	20-Jun-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1787792-8	MP-C-B01 (Travel Blank)	20-Jun-16	N-NO3 (Nitrate)	<0.020	mg/L	ALS
L1787792-8	MP-C-B01 (Travel Blank)	20-Jun-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1784066-4	MP-C-H	13-Jun-16	Conductivity	147	uS/cm	ALS
L1784066-4	MP-C-H	13-Jun-16	pH	7.92	pH units	ALS
L1784066-4	MP-C-H	13-Jun-16	Total Suspended Solids	<2.0	mg/L	ALS
L1784066-4	MP-C-H	13-Jun-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1784066-4	MP-C-H	13-Jun-16	N-NO3 (Nitrate)	0.041	mg/L	ALS
L1784066-4	MP-C-H	13-Jun-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1787792-4	MP-C-H	21-Jun-16	Conductivity	128	uS/cm	ALS
L1787792-4	MP-C-H	21-Jun-16	pH	8.01	pH units	ALS
L1787792-4	MP-C-H	21-Jun-16	Total Suspended Solids	<2.0	mg/L	ALS
L1787792-4	MP-C-H	21-Jun-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1787792-4	MP-C-H	21-Jun-16	N-NO3 (Nitrate)	0.02	mg/L	ALS
L1787792-4	MP-C-H	21-Jun-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1779754-6	MP-Q1-01	7-Jun-16	Conductivity	282	uS/cm	ALS
L1779754-6	MP-Q1-01	7-Jun-16	pH	7.93	pH units	ALS
L1779754-6	MP-Q1-01	7-Jun-16	Total Suspended Solids	48.5	mg/L	ALS
L1779754-6	MP-Q1-01	7-Jun-16	N-NH3 (Ammonia)	0.032	mg/L	ALS
L1779754-6	MP-Q1-01	7-Jun-16	N-NO3 (Nitrate)	0.309	mg/L	ALS
L1779754-6	MP-Q1-01	7-Jun-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1781992-3	MP-Q1-01	11-Jun-16	pH	7.58	pH units	ALS
L1781992-3	MP-Q1-01	11-Jun-16	Total Suspended Solids	38.4	mg/L	ALS
L1781992-3	MP-Q1-01	11-Jun-16	Total Dissolved Solids	96	mg/L	ALS
L1781992-3	MP-Q1-01	11-Jun-16	Turbidity	7.78	NTU	ALS
L1784066-1	MP-Q1-01	13-Jun-16	pH	7.98	pH units	ALS
L1784066-1	MP-Q1-01	13-Jun-16	Total Suspended Solids	21.2	mg/L	ALS
L1784066-1	MP-Q1-01	13-Jun-16	Total Dissolved Solids	76	mg/L	ALS
L1784066-1	MP-Q1-01	13-Jun-16	Turbidity	3.82	NTU	ALS
L1784066-6	MP-Q1-01	14-Jun-16	Conductivity	120	uS/cm	ALS
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TABLE 5.2

**BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT**

**2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATIONS**

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
L1785018-2	MP-Q1-02 (Downstream)	16-Jun-16	Total Dissolved Solids	124	mg/L	ALS
L1785018-2	MP-Q1-02 (Downstream)	16-Jun-16	Turbidity	6.25	NTU	ALS
L1787792-6	MP-Q1-02	20-Jun-16	Conductivity	422	uS/cm	ALS
L1787792-6	MP-Q1-02	20-Jun-16	pH	7.94	pH units	ALS
L1787792-6	MP-Q1-02	20-Jun-16	Total Suspended Solids	20.4	mg/L	ALS
L1787792-6	MP-Q1-02	20-Jun-16	N-NH3 (Ammonia)	1.16	mg/L	ALS
L1787792-6	MP-Q1-02	20-Jun-16	N-NO3 (Nitrate)	4.2	mg/L	ALS
L1787792-6	MP-Q1-02	20-Jun-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1790508-4	MP-Q1-02	28-Jun-16	pH	7.92	pH units	ALS
L1790508-4	MP-Q1-02	28-Jun-16	Total Suspended Solids	<2.0	mg/L	ALS
L1790508-5	MP-Q1-02 (Duplicate)	28-Jun-16	pH	7.88	pH units	ALS
L1790508-5	MP-Q1-02 (Duplicate)	28-Jun-16	Total Suspended Solids	2	mg/L	ALS
MARY RIVER MINE SITE						
L1779761-1	MS-01	7-Jun-16	pH	7.59	pH units	ALS
L1779761-1	MS-01	7-Jun-16	Total Suspended Solids	<2.0	mg/L	ALS
L1779761-1	MS-01	7-Jun-16	N-NH3 (Ammonia)	0.153	mg/L	ALS
L1779761-1	MS-01	7-Jun-16	Total Kjeldahl Nitrogen	8.7	mg/L	ALS
L1779761-1	MS-01	7-Jun-16	Total Phosphorus	1	mg/L	ALS
L1779761-1	MS-01	7-Jun-16	Faecal Coliforms	0	CFU/100mL	ALS
L1779761-1	MS-01	7-Jun-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1779761-1	MS-01	7-Jun-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1779757-1	MS-MRY-04C	7-Jun-16	pH	7.5	pH units	ALS
L1779757-1	MS-MRY-04C	7-Jun-16	Total Suspended Solids	10.3	mg/L	ALS
L1779757-1	MS-MRY-04C	7-Jun-16	N-NH3 (Ammonia)	0.413	mg/L	ALS
L1779757-1	MS-MRY-04C	7-Jun-16	Total Kjeldahl Nitrogen	2.13	mg/L	ALS
L1779757-1	MS-MRY-04C	7-Jun-16	Total Phosphorus	0.0505	mg/L	ALS
L1779757-1	MS-MRY-04C	7-Jun-16	Faecal Coliforms	0	CFU/100mL	ALS
L1779757-1	MS-MRY-04C	7-Jun-16	Biochemical Oxygen Demand	7.2	mg/L	ALS
L1779757-1	MS-MRY-04C	7-Jun-16	Oil & Grease - Total	<2.0	mg/L	ALS
47966	MS-MRY-04C	7-Jun-16	Acute Toxicity*	non-lethal	mortality %	Aquatox
L1779760-1	MS-MRY-6	7-Jun-16	pH	8.02	pH units	ALS
L1779760-1	MS-MRY-6	7-Jun-16	Total Suspended Solids	3.8	mg/L	ALS
L1779760-1	MS-MRY-6	7-Jun-16	Total Lead	<0.00010	mg/L	ALS
L1779760-1	MS-MRY-6	7-Jun-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1779760-1	MS-MRY-6	7-Jun-16	Benzene	<0.50	ug/L	ALS
L1779760-1	MS-MRY-6	7-Jun-16	Ethylbenzene	<0.50	ug/L	ALS
L1779760-1	MS-MRY-6	7-Jun-16	Toluene	<0.50	ug/L	ALS
L1779760-1	MS-MRY-6	7-Jun-16	F1 (C6-C10)	<100	ug/L	ALS
L1779760-1	MS-MRY-6	7-Jun-16	F2 (C10-C16)	<100	ug/L	ALS
L1779760-1	MS-MRY-6	7-Jun-16	F3 (C16-C34)	<250	ug/L	ALS
L1779760-1	MS-MRY-6	7-Jun-16	F4 (C34-C50)	<250	ug/L	ALS
L1779760-1	MS-MRY-6	7-Jun-16	Total Hydrocarbons (C6-C50)	<380	ug/L	ALS
L1787617-1	MS-MRY-6	21-Jun-16	pH	6.74	pH units	ALS
L1787617-1	MS-MRY-6	21-Jun-16	Total Suspended Solids	13.8	mg/L	ALS
L1787617-1	MS-MRY-6	21-Jun-16	Total Lead	<0.00010	mg/L	ALS
L1787617-1	MS-MRY-6	21-Jun-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1787617-1	MS-MRY-6	21-Jun-16	Benzene	<0.50	ug/L	ALS
L1787617-1	MS-MRY-6	21-Jun-16	Ethylbenzene	<0.50	ug/L	ALS
L1787617-1	MS-MRY-6	21-Jun-16	Toluene	<0.50	ug/L	ALS
L1787617-1	MS-MRY-6	21-Jun-16	F1 (C6-C10)	<100	ug/L	ALS
L1787617-1	MS-MRY-6	21-Jun-16	F2 (C10-C16)	<100	ug/L	ALS
L1787617-1	MS-MRY-6	21-Jun-16	F3 (C16-C34)	<100	ug/L	ALS
L1787617-1	MS-MRY-6	21-Jun-16	F4 (C34-C50)	<100	ug/L	ALS
L1787617-1	MS-MRY-6	21-Jun-16	Total Hydrocarbons (C6-C50)	<100	ug/L	ALS
L1791445-2	MS-08	24-Jun-16	Hardness (as CaCO3)	20	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	pH	6.93	pH units	ALS
L1791445-2	MS-08	24-Jun-16	Total Suspended Solids	8.3	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Total Dissolved Solids	13	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Turbidity	27	NTU	ALS
L1791445-2	MS-08	24-Jun-16	Alkalinity, Total (as CaCO3)	<10	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Ammonia, Total (as N)	0.117	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Chloride (Cl)	3.37	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Fluoride (F)	<0.020	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Nitrate (as N)	0.24	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Total Kjeldahl Nitrogen	<0.15	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Phosphorus, Total	0.0252	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Sulfate (SO4)	15.7	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Dissolved Organic Carbon	<1.0	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Total Organic Carbon	<1.0	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Aluminum (Al)-Total	1.35	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Arsenic (As)-Total	0.00015	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Cadmium (Cd)-Total	<0.00010	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Calcium (Ca)-Total	1.82	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Copper (Cu)-Total	0.0019	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Iron (Fe)-Total	1.43	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Lead (Pb)-Total	0.00092	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Magnesium (Mg)-Total	4.28	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Manganese (Mn)-Total	0.132	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Mercury (Hg)-Total	<0.00010	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Molybdenum (Mo)-Total	<0.00050	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Nickel (Ni)-Total	0.0036	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Potassium (K)-Total	0.948	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Selenium (Se)-Total	0.00008	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Sodium (Na)-Total	0.52	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Thallium (Tl)-Total	0.000029	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Uranium (U)-Total	0.000254	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Zinc (Zn)-Total	<0.030	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Aluminum (Al)-Dissolved	0.0092	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Arsenic (As)-Dissolved	<0.0010	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Cadmium (Cd)-Dissolved	<0.00010	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Calcium (Ca)-Dissolved	1.74	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Copper (Cu)-Dissolved	0.00024	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Iron (Fe)-Dissolved	0.015	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Lead (Pb)-Dissolved	<0.000050	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Magnesium (Mg)-Dissolved	3.69	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Manganese (Mn)-Dissolved	0.12	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Mercury (Hg)-Dissolved	<0.000010	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Molybdenum (Mo)-Dissolved	0.000102	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Nickel (Ni)-Dissolved	0.00164	mg/L	ALS
L1791445-2	MS-08	24-Jun-16	Potassium (K)-Dissolved	0.369	mg/L	

TABLE 5.2

**BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT**

**2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATIONS**

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
L1779756-1	MS-MRY-13A	6-Jun-16	Thallium (Tl)-Total	<0.00010	mg/L	ALS
L1779756-1	MS-MRY-13A	6-Jun-16	Tin (Sn)-Total	<0.00010	mg/L	ALS
L1779756-1	MS-MRY-13A	6-Jun-16	Titanium (Ti)-Total	<0.010	mg/L	ALS
L1779756-1	MS-MRY-13A	6-Jun-16	Uranium (U)-Total	0.000348	mg/L	ALS
L1779756-1	MS-MRY-13A	6-Jun-16	Vanadium (V)-Total	<0.0010	mg/L	ALS
L1779756-1	MS-MRY-13A	6-Jun-16	Zinc (Zn)-Total	<0.030	mg/L	ALS
L1779756-1	MS-MRY-13A	6-Jun-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1779756-1	MS-MRY-13A	6-Jun-16	Phenols (4AAP)	0.0019	mg/L	ALS
L1779756-1	MS-MRY-13A	6-Jun-16	F1 (C6-C10)	<100	ug/L	ALS
L1779756-1	MS-MRY-13A	6-Jun-16	F2 (C10-C16)	<100	ug/L	ALS
L1779756-1	MS-MRY-13A	6-Jun-16	F3 (C16-C34)	<250	ug/L	ALS
L1779756-1	MS-MRY-13A	6-Jun-16	F4 (C34-C50)	<250	ug/L	ALS
L1779756-1	MS-MRY-13A	6-Jun-16	Total Hydrocarbons (C6-C50)	<380	ug/L	ALS
L1782767-1	MS-MRY-13A	14-Jun-16	pH	7.71	pH units	ALS
L1782767-1	MS-MRY-13A	14-Jun-16	Total Suspended Solids	<2.0	mg/L	ALS
L1782767-1	MS-MRY-13A	14-Jun-16	Turbidity	0.32	mg/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	Conductivity	468	uS/cm	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	pH	8.13	pH units	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	Total Suspended Solids	<2.0	mg/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	Total Dissolved Solids	288	mg/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	Alkalinity, Total (as CaCO3)	152	mg/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	Dissolved Organic Carbon	4.4	mg/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	Total Organic Carbon	4.9	mg/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	Mercury (Hg)-Total	<0.000010	mg/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	Aluminum (Al)-Total	<0.0030	mg/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	Antimony (Sb)-Total	0.0001	mg/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	Arsenic (As)-Total	0.00018	mg/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	Barium (Ba)-Total	0.0274	mg/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	Cadmium (Cd)-Total	<0.000010	mg/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	Chromium (Cr)-Total	<0.00050	mg/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	Cobalt (Co)-Total	<0.0010	mg/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	Copper (Cu)-Total	0.00118	mg/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	Iron (Fe)-Total	<0.030	mg/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	Lead (Pb)-Total	<0.000050	mg/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	Lithium (Li)-Total	0.0016	mg/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	Manganese (Mn)-Total	0.00634	mg/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	Molybdenum (Mo)-Total	0.000208	mg/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	Nickel (Ni)-Total	0.0112	mg/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	Selenium (Se)-Total	<0.010	mg/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	Strontium (Sr)-Total	0.0199	mg/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	Thallium (Tl)-Total	<0.00010	mg/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	Tin (Sn)-Total	<0.00010	mg/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	Titanium (Ti)-Total	<0.010	mg/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	Uranium (U)-Total	0.000543	mg/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	Vanadium (V)-Total	<0.0010	mg/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	Zinc (Zn)-Total	<0.030	mg/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	Phenols (4AAP)	0.0015	mg/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	F1 (C6-C10)	<100	ug/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	F2 (C10-C16)	<100	ug/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	F3 (C16-C34)	<250	ug/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	F4 (C34-C50)	<250	ug/L	ALS
L1787809-8	MS-MRY-13A	21-Jun-16	Total Hydrocarbons (C6-C50)	<380	ug/L	ALS
L1790062-10	MS-MRY-13A	28-Jun-16	pH	8.15	pH units	ALS
L1790062-10	MS-MRY-13A	28-Jun-16	Total Suspended Solids	4.8	mg/L	ALS
L1790062-10	MS-MRY-13A	28-Jun-16	Turbidity	0.49	NTU	ALS
L1779756-6	MS-C-A	6-Jun-16	Conductivity	52.8	uS/cm	ALS
L1779756-6	MS-C-A	6-Jun-16	pH	7.64	pH units	ALS
L1779756-6	MS-C-A	6-Jun-16	Total Suspended Solids	2.9	mg/L	ALS
L1779756-6	MS-C-A	6-Jun-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1779756-6	MS-C-A	6-Jun-16	N-NO3 (Nitrate)	<0.020	mg/L	ALS
L1779756-6	MS-C-A	6-Jun-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1782817-4	MS-C-A	13-Jun-16	pH	7.6	pH units	ALS
L1782817-4	MS-C-A	13-Jun-16	Total Suspended Solids	<2.0	mg/L	ALS
L1782817-4	MS-C-A	13-Jun-16	Total Dissolved Solids	40	mg/L	ALS
L1782817-4	MS-C-A	13-Jun-16	Turbidity	3.53	NTU	ALS
L1787809-1	MS-C-A	21-Jun-16	Conductivity	112	uS/cm	ALS
L1787809-1	MS-C-A	21-Jun-16	pH	7.81	pH units	ALS
L1787809-1	MS-C-A	21-Jun-16	Total Suspended Solids	<2.0	mg/L	ALS
L1787809-1	MS-C-A	21-Jun-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1787809-1	MS-C-A	21-Jun-16	N-NO3 (Nitrate)	0.05	mg/L	ALS
L1787809-1	MS-C-A	21-Jun-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1790062-1	MS-C-A	28-Jun-16	pH	7.82	pH units	ALS
L1790062-1	MS-C-A	28-Jun-16	Total Suspended Solids	<2.0	mg/L	ALS
L1790062-1	MS-C-A	28-Jun-16	Turbidity	0.53	mg/L	ALS
L1779756-7	MS-C-B	6-Jun-16	Conductivity	52	uS/cm	ALS
L1779756-7	MS-C-B	6-Jun-16	pH	7.64	pH units	ALS
L1779756-7	MS-C-B	6-Jun-16	Total Suspended Solids	<2.0	mg/L	ALS
L1779756-7	MS-C-B	6-Jun-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1779756-7	MS-C-B	6-Jun-16	N-NO3 (Nitrate)	0.022	mg/L	ALS
L1779756-7	MS-C-B	6-Jun-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1782817-5	MS-C-B	13-Jun-16	pH	7.57	pH units	ALS
L1782817-5	MS-C-B	13-Jun-16	Total Suspended Solids	<2.0	mg/L	ALS
L1782817-5	MS-C-B	13-Jun-16	Total Dissolved Solids	40	mg/L	ALS
L1782817-5	MS-C-B	13-Jun-16	Turbidity	3.64	NTU	ALS
L1787809-2	MS-C-B	21-Jun-16	Conductivity	115	uS/cm	ALS
L1787809-2	MS-C-B	21-Jun-16	pH	7.84	pH units	ALS
L1787809-2	MS-C-B	21-Jun-16	Total Suspended Solids	<2.0	mg/L	ALS
L1787809-2	MS-C-B	21-Jun-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1787809-2	MS-C-B	21-Jun-16	N-NO3 (Nitrate)	0.061	mg/L	ALS
L1787809-2	MS-C-B	21-Jun-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1790062-2	MS-C-B	28-Jun-16	pH	7.66	pH units	ALS
L1790062-2	MS-C-B	28-Jun-16	Total Suspended Solids	<2.0	mg/L	ALS
L1790062-2	MS-C-B	28-Jun-16	Turbidity	1.01	NTU	ALS
L1782817-6	MS-C-C	13-Jun-16	Conductivity	563	uS/cm	ALS
L1782817-6	MS-C-C	13-Jun-16	pH	7.79	pH units	ALS
L1782817-6	MS-C-C	13-Jun-16	Total Suspended Solids	<2.0	mg/L	ALS
L1782817-6	MS-C-C	13-Jun-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1782817-6	MS-C-C	13-Jun-16	N-NO3 (Nitrate)	0.061	mg/L	ALS
L1782817-6	MS-C-C	1				

TABLE 5.2

**BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT**

**2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATIONS**

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
L1790062-5	MS-C-D	27-Jun-16	Total Suspended Solids	7.2	mg/L	ALS
L1790062-5	MS-C-D	27-Jun-16	Turbidity	2.51	NTU	ALS
L1779756-2	MS-C-E	6-Jun-16	Conductivity	200	uS/cm	ALS
L1779756-2	MS-C-E	6-Jun-16	pH	8.05	pH units	ALS
L1779756-2	MS-C-E	6-Jun-16	Total Suspended Solids	2.8	mg/L	ALS
L1779756-2	MS-C-E	6-Jun-16	N-NH3 (Ammonia)	0.011	mg/L	ALS
L1779756-2	MS-C-E	6-Jun-16	N-NO3 (Nitrate)	0.401	mg/L	ALS
L1779756-2	MS-C-E	6-Jun-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1782817-8	MS-C-E	13-Jun-16	pH	7.91	pH units	ALS
L1782817-8	MS-C-E	13-Jun-16	Total Suspended Solids	5.6	mg/L	ALS
L1782817-8	MS-C-E	13-Jun-16	Total Dissolved Solids	144	mg/L	ALS
L1782817-8	MS-C-E	13-Jun-16	Turbidity	12.6	NTU	ALS
L1787809-5	MS-C-E	21-Jun-16	Conductivity	551	uS/cm	ALS
L1787809-5	MS-C-E	21-Jun-16	pH	8.16	pH units	ALS
L1787809-5	MS-C-E	21-Jun-16	Total Suspended Solids	2	mg/L	ALS
L1787809-5	MS-C-E	21-Jun-16	N-NH3 (Ammonia)	0.031	mg/L	ALS
L1787809-5	MS-C-E	21-Jun-16	N-NO3 (Nitrate)	2.99	mg/L	ALS
L1787809-5	MS-C-E	21-Jun-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1790062-6	MS-C-E	27-Jun-16	pH	8.01	pH units	ALS
L1790062-6	MS-C-E	27-Jun-16	Total Suspended Solids	2.4	mg/L	ALS
L1790062-6	MS-C-E	27-Jun-16	Turbidity	1.79	NTU	ALS
L1790062-7	MS-C-E (Duplicate)	27-Jun-16	pH	8.01	pH units	ALS
L1790062-7	MS-C-E (Duplicate)	27-Jun-16	Total Suspended Solids	<2.0	mg/L	ALS
L1790062-7	MS-C-E (Duplicate)	27-Jun-16	Turbidity	1.78	NTU	ALS
L1782817-10	MS-C-G	14-Jun-16	Conductivity	49.9	uS/cm	ALS
L1782817-10	MS-C-G	14-Jun-16	pH	7.49	pH units	ALS
L1782817-10	MS-C-G	14-Jun-16	Total Suspended Solids	<2.0	mg/L	ALS
L1782817-10	MS-C-G	14-Jun-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1782817-10	MS-C-G	14-Jun-16	N-NO3 (Nitrate)	0.088	mg/L	ALS
L1782817-10	MS-C-G	14-Jun-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1787809-12	MS-C-G	21-Jun-16	Conductivity	68.5	uS/cm	ALS
L1787809-12	MS-C-G	21-Jun-16	pH	7.78	pH units	ALS
L1787809-12	MS-C-G	21-Jun-16	Total Suspended Solids	<2.0	mg/L	ALS
L1787809-12	MS-C-G	21-Jun-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1787809-12	MS-C-G	21-Jun-16	N-NO3 (Nitrate)	0.058	mg/L	ALS
L1787809-12	MS-C-G	21-Jun-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1790062-9	MS-C-G	28-Jun-16	pH	7.63	pH units	ALS
L1790062-9	MS-C-G	28-Jun-16	Total Suspended Solids	2	mg/L	ALS
L1790062-9	MS-C-G	28-Jun-16	Turbidity	0.54	NTU	ALS
L1779756-9	MS-C-H	6-Jun-16	Conductivity	92.9	uS/cm	ALS
L1779756-9	MS-C-H	6-Jun-16	pH	7.92	pH units	ALS
L1779756-9	MS-C-H	6-Jun-16	Total Suspended Solids	3	mg/L	ALS
L1779756-9	MS-C-H	6-Jun-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1779756-9	MS-C-H	6-Jun-16	N-NO3 (Nitrate)	0.026	mg/L	ALS
L1779756-9	MS-C-H	6-Jun-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1782817-11	MS-C-H	14-Jun-16	pH	7.92	pH units	ALS
L1782817-11	MS-C-H	14-Jun-16	Total Suspended Solids	<2.0	mg/L	ALS
L1782817-11	MS-C-H	14-Jun-16	Total Dissolved Solids	64	mg/L	ALS
L1782817-11	MS-C-H	14-Jun-16	Turbidity	3.53	NTU	ALS
L1787809-13	MS-C-H	21-Jun-16	Conductivity	189	uS/cm	ALS
L1787809-13	MS-C-H	21-Jun-16	pH	8.08	pH units	ALS
L1787809-13	MS-C-H	21-Jun-16	Total Suspended Solids	<2.0	mg/L	ALS
L1787809-13	MS-C-H	21-Jun-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1787809-13	MS-C-H	21-Jun-16	N-NO3 (Nitrate)	0.047	mg/L	ALS
L1787809-13	MS-C-H	21-Jun-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1779756-5	MQ-C-A	6-Jun-16	Conductivity	54.4	uS/cm	ALS
L1779756-5	MQ-C-A	6-Jun-16	pH	7.68	pH units	ALS
L1779756-5	MQ-C-A	6-Jun-16	Total Suspended Solids	6.2	mg/L	ALS
L1779756-5	MQ-C-A	6-Jun-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1779756-5	MQ-C-A	6-Jun-16	N-NO3 (Nitrate)	0.076	mg/L	ALS
L1779756-5	MQ-C-A	6-Jun-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1782817-1	MQ-C-A	13-Jun-16	pH	7.9	pH units	ALS
L1782817-1	MQ-C-A	13-Jun-16	Total Suspended Solids	<2.0	mg/L	ALS
L1782817-1	MQ-C-A	13-Jun-16	Total Dissolved Solids	48	mg/L	ALS
L1782817-1	MQ-C-A	13-Jun-16	Turbidity	2.11	NTU	ALS
L1787809-9	MQ-C-A	20-Jun-16	Conductivity	62	uS/cm	ALS
L1787809-9	MQ-C-A	20-Jun-16	pH	7.81	pH units	ALS
L1787809-9	MQ-C-A	20-Jun-16	Total Suspended Solids	<2.0	mg/L	ALS
L1787809-9	MQ-C-A	20-Jun-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1787809-9	MQ-C-A	20-Jun-16	N-NO3 (Nitrate)	0.082	mg/L	ALS
L1787809-9	MQ-C-A	20-Jun-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1790062-11	MQ-C-A	27-Jun-16	pH	7.7	pH units	ALS
L1790062-11	MQ-C-A	27-Jun-16	Total Suspended Solids	<2.0	mg/L	ALS
L1790062-11	MQ-C-A	27-Jun-16	Turbidity	5.29	NTU	ALS
L1779756-13	MQ-C-B	7-Jun-16	Conductivity	99.6	uS/cm	ALS
L1779756-13	MQ-C-B	7-Jun-16	pH	7.76	pH units	ALS
L1779756-13	MQ-C-B	7-Jun-16	Total Suspended Solids (see Note 4)	48	mg/L	ALS
L1779756-13	MQ-C-B	7-Jun-16	N-NH3 (Ammonia)	0.266	mg/L	ALS
L1779756-13	MQ-C-B	7-Jun-16	N-NO3 (Nitrate)	0.766	mg/L	ALS
L1779756-13	MQ-C-B	7-Jun-16	Oil & Grease - Total	<2.0	mg/L	ALS
47965	MQ-C-B	7-Jun-16	Acute Toxicity*	non-lethal	mortality %	Aquatox
L1782817-2	MQ-C-B	13-Jun-16	pH	7.77	pH units	ALS
L1782817-2	MQ-C-B	13-Jun-16	Total Suspended Solids	4.8	mg/L	ALS
L1782817-2	MQ-C-B	13-Jun-16	Total Dissolved Solids	60	mg/L	ALS
L1782817-2	MQ-C-B	13-Jun-16	Turbidity	9.33	NTU	ALS
L1787809-10	MQ-C-B	20-Jun-16	Conductivity	222	uS/cm	ALS
L1787809-10	MQ-C-B	20-Jun-16	pH	7.9	pH units	ALS
L1787809-10	MQ-C-B	20-Jun-16	Total Suspended Solids	2.4	mg/L	ALS
L1787809-10	MQ-C-B	20-Jun-16	N-NH3 (Ammonia)	0.585	mg/L	ALS
L1787809-10	MQ-C-B	20-Jun-16	N-NO3 (Nitrate)	2.56	mg/L	ALS
L1787809-10	MQ-C-B	20-Jun-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1790062-12	MQ-C-B	27-Jun-16	pH	7.85	pH units	ALS
L1790062-12	MQ-C-B	27-Jun-16	Total Suspended Solids	2.8	mg/L	ALS
L1790062-12	MQ-C-B	27-Jun-16	Turbidity	3.98	NTU	ALS
L1779756-4	MQ-C-D	6-Jun-16	Conductivity	116	uS/cm	ALS
L1779756-4	MQ-C-D	6-Jun-16	pH	7.8	pH units	ALS
L1779756-4	MQ-C-D	6-Jun-16	Total Suspended Solids	7.8	mg/L	ALS
L1779756-4	MQ-C-D	6-Jun-16	N-NH3 (Ammonia)	0.135	mg/L	ALS
L1779756-4	MQ-C-D	6-Jun-16	N-NO3 (Nitrate)	0.526	mg/L	ALS
L1779756-4	MQ-C-D	6-Jun-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1782817-3	MQ-C-D	13-Jun-16	pH	7.77	pH units	ALS
L1782817-3	MQ-C-D	13-Jun-16	Total Suspended Solids	5.2	mg/L	ALS
L1782817-3	MQ-C-D	13-Jun-16	Total Dissolved Solids	100	mg/L	ALS
L1782817-3	MQ-C-D	13-Jun-16	Turbidity	13.5	NTU	ALS
L1787809-11	MQ-C-D	20-Jun-16	Conductivity	339	uS/cm	ALS
L1787809-11	MQ-C-D	20-Jun				

TABLE 5.2

**BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT**

**2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATIONS**

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
L1800885-1	MP-04-LF	18-Jul-16	Lead (Pb)-Total	0.00024	mg/L	ALS
L1800885-1	MP-04-LF	18-Jul-16	Oil and Grease, Total	3.2	mg/L	ALS
L1800885-1	MP-04-LF	18-Jul-16	Benzene	<0.50	ug/L	ALS
L1800885-1	MP-04-LF	18-Jul-16	Ethylbenzene	<0.50	ug/L	ALS
L1800885-1	MP-04-LF	18-Jul-16	Toluene	<0.50	ug/L	ALS
L1800885-1	MP-04-LF	18-Jul-16	o-Xylene	<0.50	ug/L	ALS
L1800885-1	MP-04-LF	18-Jul-16	m+p-Xylenes	<1.0	ug/L	ALS
L1800885-1	MP-04-LF	18-Jul-16	F1 (C6-C10)	<100	ug/L	ALS
L1800885-1	MP-04-LF	18-Jul-16	F1-BTEX	<100	ug/L	ALS
L1800885-1	MP-04-LF	18-Jul-16	F2 (C10-C16)	1070	ug/L	ALS
L1800885-1	MP-04-LF	18-Jul-16	F3 (C16-C34)	4340	ug/L	ALS
L1800885-1	MP-04-LF	18-Jul-16	F4 (C34-C50)	<250	ug/L	ALS
L1800885-1	MP-04-LF	18-Jul-16	Total Hydrocarbons (C6-C50)	5410	ug/L	ALS
L1800885-2	MP-04-SD	18-Jul-16	pH	8.07	pH units	ALS
L1800885-2	MP-04-SD	18-Jul-16	Total Suspended Solids	26	mg/L	ALS
L1800885-2	MP-04-SD	18-Jul-16	Lead (Pb)-Total	0.00025	mg/L	ALS
L1800885-2	MP-04-SD	18-Jul-16	Oil and Grease, Total	9.2	mg/L	ALS
L1800885-2	MP-04-SD	18-Jul-16	Benzene	<0.50	ug/L	ALS
L1800885-2	MP-04-SD	18-Jul-16	Ethylbenzene	<0.50	ug/L	ALS
L1800885-2	MP-04-SD	18-Jul-16	Toluene	<0.50	ug/L	ALS
L1800885-2	MP-04-SD	18-Jul-16	o-Xylene	<0.50	ug/L	ALS
L1800885-2	MP-04-SD	18-Jul-16	m+p-Xylenes	<1.0	ug/L	ALS
L1800885-2	MP-04-SD	18-Jul-16	F1 (C6-C10)	<100	ug/L	ALS
L1800885-2	MP-04-SD	18-Jul-16	F1-BTEX	<100	ug/L	ALS
L1800885-2	MP-04-SD	18-Jul-16	F2 (C10-C16)	1560	ug/L	ALS
L1800885-2	MP-04-SD	18-Jul-16	F3 (C16-C34)	12300	ug/L	ALS
L1800885-2	MP-04-SD	18-Jul-16	F4 (C34-C50)	1690	ug/L	ALS
L1800885-2	MP-04-SD	18-Jul-16	Total Hydrocarbons (C6-C50)	15600	ug/L	ALS
L1800881-1	MP-05	18-Jul-16	Hardness (as CaCO ₃)	281	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	pH	8.3	pH units	ALS
L1800881-1	MP-05	18-Jul-16	Total Suspended Solids	4	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Total Dissolved Solids	910	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Turbidity	4.32	NTU	ALS
L1800881-1	MP-05	18-Jul-16	Alkalinity, Total (as CaCO ₃)	161	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Chloride (Cl)	331	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Fluoride (F)	0.537	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Nitrate (as N)	6.72	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Total Kjeldahl Nitrogen	1.43	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Phosphorus, Total	0.0104	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Sulfate (SO ₄)	89.8	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Dissolved Organic Carbon	5	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Total Organic Carbon	5.1	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Aluminum (Al)-Total	0.106	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Arsenic (As)-Total	0.00033	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Cadmium (Cd)-Total	<0.000010	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Calcium (Ca)-Total	55.9	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Copper (Cu)-Total	0.0017	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Iron (Fe)-Total	0.087	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Lead (Pb)-Total	<0.00010	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Magnesium (Mg)-Total	37.1	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Manganese (Mn)-Total	0.00874	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Mercury (Hg)-Total	<0.000010	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Molybdenum (Mo)-Total	0.00911	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Nickel (Ni)-Total	<0.0010	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Potassium (K)-Total	15.2	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Selenium (Se)-Total	0.000195	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Sodium (Na)-Total	200 *	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Thallium (Tl)-Total	0.000013	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Uranium (U)-Total	0.0224	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Zinc (Zn)-Total	0.0125	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Aluminum (Al)-Dissolved	0.0327	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Arsenic (As)-Dissolved	0.00032	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Cadmium (Cd)-Dissolved	<0.000010	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Calcium (Ca)-Dissolved	53.5	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Copper (Cu)-Dissolved	0.00147	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Iron (Fe)-Dissolved	<0.010	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Lead (Pb)-Dissolved	<0.000050	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Magnesium (Mg)-Dissolved	35.7	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Manganese (Mn)-Dissolved	0.00474	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Mercury (Hg)-Dissolved	<0.000010	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Molybdenum (Mo)-Dissolved	0.00865	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Nickel (Ni)-Dissolved	<0.00050	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Potassium (K)-Dissolved	14.6	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Selenium (Se)-Dissolved	0.000201	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Sodium (Na)-Dissolved	191 *	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Thallium (Tl)-Dissolved	0.00001	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Uranium (U)-Dissolved	0.0228	mg/L	ALS
L1800881-1	MP-05	18-Jul-16	Zinc (Zn)-Dissolved	0.0091	mg/L	ALS
L1800881-2	MP-06	18-Jul-16	Hardness (as CaCO ₃)	435	mg/L	ALS
L1800881-2	MP-06	18-Jul-16	pH	8.11	pH units	ALS
L1800881-2	MP-06	18-Jul-16	Total Suspended Solids	2.8	mg/L	ALS
L1800881-2	MP-06	18-Jul-16	Total Dissolved Solids	824	mg/L	ALS
L1800881-2	MP-06	18-Jul-16	Turbidity	1.68	NTU	ALS
L1800881-2	MP-06	18-Jul-16	Alkalinity, Total (as CaCO ₃)	67	mg/L	ALS
L1800881-2	MP-06	18-Jul-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1800881-2	MP-06	18-Jul-16	Chloride (Cl)	198	mg/L	ALS
L1800881-2	MP-06	18-Jul-16	Fluoride (F)	0.125	mg/L	ALS
L1800881-2	MP-06	18-Jul-16	Nitrate (as N)	3.83	mg/L	ALS
L1800881-2	MP-06	18-Jul-16	Total Kjeldahl Nitrogen	0.68	mg/L	ALS
L1800881-2	MP-06	18-Jul-16	Phosphorus, Total	0.007	mg/L	ALS
L1800881-2	MP-06	18-Jul-16	Sulfate (SO ₄)	304	mg/L	ALS
L1800881-2	MP-06	18-Jul-16	Dissolved Organic Carbon	2.2	mg/L	ALS
L1800881-2	MP-06	18-Jul-16	Total Organic Carbon	2.3	mg/L	ALS
L1800881-2	MP-06	18-Jul-16	Aluminum (Al)-Total	0.019	mg/L	ALS
L1800881-2	MP-06	18-Jul-16	Arsenic (As)-Total	0.00016	mg/L	ALS
L1800881-2	MP-06	18-Jul-16	Cadmium (Cd)-Total	<0.000010	mg/L	ALS
L1800881-2	MP-06	18-Jul-16	Calcium (Ca)-Total	70	mg/L	ALS
L1800881-2	MP-06	18-Jul-16	Copper (Cu)-Total	<0		

TABLE 5.2

**BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT**

**2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATIONS**

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
L1793579-3	MP-06 TEMP	5-Jul-16	Conductivity	555	uS/cm	ALS
L1793579-3	MP-06 TEMP	5-Jul-16	pH	8.21	pH units	ALS
L1793579-3	MP-06 TEMP	5-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1793579-3	MP-06 TEMP	5-Jul-16	Ammonia, Total (as N)	0.04	mg/L	ALS
L1793579-3	MP-06 TEMP	5-Jul-16	Nitrate (as N)	0.503	mg/L	ALS
L1793579-3	MP-06 TEMP	5-Jul-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1793579-4	MP-06 TEMP1	5-Jul-16	Conductivity	536	uS/cm	ALS
L1793579-4	MP-06 TEMP1	5-Jul-16	pH	8.38	pH units	ALS
L1793579-4	MP-06 TEMP1	5-Jul-16	Total Suspended Solids	5.6	mg/L	ALS
L1793579-4	MP-06 TEMP1	5-Jul-16	Ammonia, Total (as N)	0.08	mg/L	ALS
L1793579-4	MP-06 TEMP1	5-Jul-16	Nitrate (as N)	1.01	mg/L	ALS
L1793579-4	MP-06 TEMP1	5-Jul-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1804264-6	MP-06 TEMP1	26-Jul-16	pH	8.11	pH units	ALS
L1804264-6	MP-06 TEMP1	26-Jul-16	Total Suspended Solids	4.8	mg/L	ALS
L1793579-7	MP-C-B	5-Jul-16	Conductivity	527	uS/cm	ALS
L1793579-7	MP-C-B	5-Jul-16	pH	8.36	pH units	ALS
L1793579-7	MP-C-B	5-Jul-16	Total Suspended Solids	19.6	mg/L	ALS
L1793579-7	MP-C-B	5-Jul-16	Ammonia, Total (as N)	0.101	mg/L	ALS
L1793579-7	MP-C-B	5-Jul-16	Nitrate (as N)	1.24	mg/L	ALS
L1793579-7	MP-C-B	5-Jul-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1804264-4	MP-C-B	26-Jul-16	pH	8.37	pH units	ALS
L1804264-4	MP-C-B	26-Jul-16	Total Suspended Solids	2	mg/L	ALS
L1793579-5	MP-C-B01	5-Jul-16	Conductivity	513	uS/cm	ALS
L1793579-5	MP-C-B01	5-Jul-16	pH	8.28	pH units	ALS
L1793579-5	MP-C-B01	5-Jul-16	Total Suspended Solids	9.3	mg/L	ALS
L1793579-5	MP-C-B01	5-Jul-16	Ammonia, Total (as N)	0.051	mg/L	ALS
L1793579-5	MP-C-B01	5-Jul-16	Nitrate (as N)	1.84	mg/L	ALS
L1793579-5	MP-C-B01	5-Jul-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1797757-5	MP-C-B01	12-Jul-16	pH	8.3	uS/cm	ALS
L1797757-5	MP-C-B01	12-Jul-16	Total Suspended Solids	2	pH units	ALS
L1797757-5	MP-C-B01	12-Jul-16	Total Dissolved Solids	317	mg/L	ALS
L1797757-5	MP-C-B01	12-Jul-16	Turbidity	5.43	mg/L	ALS
L1800892-1	MP-C-B01	18-Jul-16	Conductivity	589	uS/cm	ALS
L1800892-1	MP-C-B01	18-Jul-16	pH	8.37	pH units	ALS
L1800892-1	MP-C-B01	18-Jul-16	Total Suspended Solids	3.2	mg/L	ALS
L1800892-1	MP-C-B01	18-Jul-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1800892-1	MP-C-B01	18-Jul-16	Nitrate (as N)	1.84	mg/L	ALS
L1800892-1	MP-C-B01	18-Jul-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1804264-5	MP-C-B01	26-Jul-16	pH	8.3	uS/cm	ALS
L1804264-5	MP-C-B01	26-Jul-16	Total Suspended Solids	<2.0	pH units	ALS
L1793579-6	MP-C-B0101	5-Jul-16	Conductivity	513	uS/cm	ALS
L1793579-6	MP-C-B0101	5-Jul-16	pH	8.29	pH units	ALS
L1793579-6	MP-C-B0101	5-Jul-16	Total Suspended Solids	7.7	mg/L	ALS
L1793579-6	MP-C-B0101	5-Jul-16	Ammonia, Total (as N)	0.056	mg/L	ALS
L1793579-6	MP-C-B0101	5-Jul-16	Nitrate (as N)	1.85	mg/L	ALS
L1793579-6	MP-C-B0101	5-Jul-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1797757-3	MP-C-D	12-Jul-16	pH	8.41	pH units	ALS
L1797757-3	MP-C-D	12-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1797757-3	MP-C-D	12-Jul-16	Total Dissolved Solids	317	mg/L	ALS
L1797757-3	MP-C-D	12-Jul-16	Turbidity	4.07	NTU	ALS
L1793579-8	MP-C-H	5-Jul-16	Conductivity	183	uS/cm	ALS
L1793579-8	MP-C-H	5-Jul-16	pH	8.21	pH units	ALS
L1793579-8	MP-C-H	5-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1793579-8	MP-C-H	5-Jul-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1793579-8	MP-C-H	5-Jul-16	Nitrate (as N)	0.055	mg/L	ALS
L1793579-8	MP-C-H	5-Jul-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1797757-4	MP-C-H	12-Jul-16	pH	8.23	pH units	ALS
L1797757-4	MP-C-H	12-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1797757-4	MP-C-H	12-Jul-16	Total Dissolved Solids	125	mg/L	ALS
L1797757-4	MP-C-H	12-Jul-16	Turbidity	0.15	NTU	ALS
L1800892-4	MP-C-H	18-Jul-16	Conductivity	258	uS/cm	ALS
L1800892-4	MP-C-H	18-Jul-16	pH	8.33	pH units	ALS
L1800892-4	MP-C-H	18-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1800892-4	MP-C-H	18-Jul-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1800892-4	MP-C-H	18-Jul-16	Nitrate (as N)	0.121	mg/L	ALS
L1800892-4	MP-C-H	18-Jul-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1804264-7	MP-C-H	26-Jul-16	pH	8.27	pH units	ALS
L1804264-7	MP-C-H	26-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1793579-1	MP-Q1-01	5-Jul-16	Conductivity	220	uS/cm	ALS
L1793579-1	MP-Q1-01	5-Jul-16	pH	8.05	pH units	ALS
L1793579-1	MP-Q1-01	5-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1793579-1	MP-Q1-01	5-Jul-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1793579-1	MP-Q1-01	5-Jul-16	Nitrate (as N)	0.481	mg/L	ALS
L1793579-1	MP-Q1-01	5-Jul-16	Oil & Grease - Total	<2.0	mg/L	ALS
48238	MP-Q1-01	5-Jul-16	Acute Toxicity*	non-lethal	mortality %	Aquatox
L1797757-1	MP-Q1-01	12-Jul-16	pH	8.01	pH units	ALS
L1797757-1	MP-Q1-01	12-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1797757-1	MP-Q1-01	12-Jul-16	Total Dissolved Solids	155	mg/L	ALS
L1797757-1	MP-Q1-01	12-Jul-16	Turbidity	0.51	NTU	ALS
L1800892-3	MP-Q1-01	18-Jul-16	Conductivity	306	uS/cm	ALS
L1800892-3	MP-Q1-01	18-Jul-16	pH	8.28	pH units	ALS
L1800892-3	MP-Q1-01	18-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1800892-3	MP-Q1-01	18-Jul-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1800892-3	MP-Q1-01	18-Jul-16	Nitrate (as N)	1.02	mg/L	ALS
L1800892-3	MP-Q1-01	18-Jul-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1804264-3	MP-Q1-01	26-Jul-16	pH	8.13	pH units	ALS
L1804264-3	MP-Q1-01	26-Jul-16	Total Suspended Solids	2	mg/L	ALS
L1793579-2	MP-Q1-02	5-Jul-16	Conductivity	611	uS/cm	ALS
L1793579-2	MP-Q1-02	5-Jul-16	pH	7.98	pH units	ALS
L1793579-2	MP-Q1-02	5-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1793579-2	MP-Q1-02	5-Jul-16	Ammonia, Total (as N)	0.552	mg/L	ALS
L1793579-2	MP-Q1-02	5-Jul-16	Nitrate (as N)	7.77	mg/L	ALS
L1793579-2	MP-Q1-02	5-Jul-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1797757-2	MP-Q1-02	12-Jul-16	pH	7.97	pH units	ALS
L1797757-2	MP-Q1-02	12-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1797757-2	MP-Q1-02	12-Jul-16	Total Dissolved Solids	450	mg/L	ALS
L1797757-2	MP-Q1-02	12-Jul-16	Turbidity	0.83	NTU	ALS
L1800892-2	MP-Q1-02	18-Jul-16	Conductivity	818	uS/cm	ALS
L1800892-2	MP-Q1-02	18-Jul-16	pH	8.16	pH units	ALS
L1800892-2	MP-Q1-02	18-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1800892-2	MP-Q1-02	18-Jul-16	Ammonia, Total (as N)	0.189	mg/L	ALS
L1800892-2	MP-Q1-02	18-Jul-16	Nitrate (as N)	12	mg/L	ALS
L1800892-2	MP-Q1-02	18-Jul-16	Oil & Grease - Total	<2.0	mg/L	ALS
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TABLE 5.2

**BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT**

**2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATIONS**

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
L1792827-1	MS-03	5-Jul-16	F2 (C10-C16)	11500	ug/L	ALS
L1792827-1	MS-03	5-Jul-16	F3 (C16-C34)	15800	ug/L	ALS
L1792827-1	MS-03	5-Jul-16	F4 (C34-C50)	280	ug/L	ALS
L1792827-1	MS-03	5-Jul-16	Total Hydrocarbons (C6-C50)	27700	ug/L	ALS
L1796641-1	MS-08 (MMER Pre-Discharge)	12-Jul-16	pH	7.24	pH units	ALS
L1796641-1	MS-08 (MMER Pre-Discharge)	12-Jul-16	Total Suspended Solids	9.6	mg/L	ALS
L1796641-1	MS-08 (MMER Pre-Discharge)	12-Jul-16	Total Dissolved Solids	50	mg/L	ALS
L1796641-1	MS-08 (MMER Pre-Discharge)	12-Jul-16	Turbidity	19.6	NTU	ALS
L1796641-1	MS-08 (MMER Pre-Discharge)	12-Jul-16	Aluminum (Al)-Total	0.65	mg/L	ALS
L1796641-1	MS-08 (MMER Pre-Discharge)	12-Jul-16	Arsenic (As)-Total	0.0001	mg/L	ALS
L1796641-1	MS-08 (MMER Pre-Discharge)	12-Jul-16	Cadmium (Cd)-Total	<0.000010	mg/L	ALS
L1796641-1	MS-08 (MMER Pre-Discharge)	12-Jul-16	Calcium (Ca)-Total	2.75	mg/L	ALS
L1796641-1	MS-08 (MMER Pre-Discharge)	12-Jul-16	Copper (Cu)-Total	0.0013	mg/L	ALS
L1796641-1	MS-08 (MMER Pre-Discharge)	12-Jul-16	Iron (Fe)-Total	0.7	mg/L	ALS
L1796641-1	MS-08 (MMER Pre-Discharge)	12-Jul-16	Lead (Pb)-Total	0.00061	mg/L	ALS
L1796641-1	MS-08 (MMER Pre-Discharge)	12-Jul-16	Magnesium (Mg)-Total	4.25	mg/L	ALS
L1796641-1	MS-08 (MMER Pre-Discharge)	12-Jul-16	Manganese (Mn)-Total	0.106	mg/L	ALS
L1796641-1	MS-08 (MMER Pre-Discharge)	12-Jul-16	Molybdenum (Mo)-Total	0.000125	mg/L	ALS
L1796641-1	MS-08 (MMER Pre-Discharge)	12-Jul-16	Nickel (Ni)-Total	0.00215	mg/L	ALS
L1796641-1	MS-08 (MMER Pre-Discharge)	12-Jul-16	Potassium (K)-Total	0.697	mg/L	ALS
L1796641-1	MS-08 (MMER Pre-Discharge)	12-Jul-16	Selenium (Se)-Total	0.000069	mg/L	ALS
L1796641-1	MS-08 (MMER Pre-Discharge)	12-Jul-16	Sodium (Na)-Total	<0.50	mg/L	ALS
L1796641-1	MS-08 (MMER Pre-Discharge)	12-Jul-16	Thallium (Tl)-Total	0.000018	mg/L	ALS
L1796641-1	MS-08 (MMER Pre-Discharge)	12-Jul-16	Uranium (U)-Total	0.000186	mg/L	ALS
L1796641-1	MS-08 (MMER Pre-Discharge)	12-Jul-16	Zinc (Zn)-Total	<0.030	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Hardness (as CaCO ₃)	25	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	pH	7.31	pH units	ALS
L1801067-1	MS-08	19-Jul-16	Total Suspended Solids	10.4	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Total Dissolved Solids	41	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Turbidity	20.8	NTU	ALS
L1801067-1	MS-08	19-Jul-16	Alkalinity, Total (as CaCO ₃)	11	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Chloride (Cl)	0.64	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Fluoride (F)	<0.020	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Nitrate (as N)	0.221	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Total Kjeldahl Nitrogen	<0.15	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Phosphorus, Total	0.0155	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Sulfate (SO ₄)	16.9	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Dissolved Organic Carbon	<1.0	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Total Organic Carbon	<1.0	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Aluminum (Al)-Total	0.66	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Arsenic (As)-Total	0.00011	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Cadmium (Cd)-Total	<0.000010	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Calcium (Ca)-Total	2.98	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Copper (Cu)-Total	0.0053	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Iron (Fe)-Total	0.774	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Lead (Pb)-Total	0.00061	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Magnesium (Mg)-Total	4.62	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Manganese (Mn)-Total	0.0972	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Mercury (Hg)-Total	<0.000010	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Molybdenum (Mo)-Total	<0.00050	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Nickel (Ni)-Total	0.0024	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Potassium (K)-Total	0.776	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Selenium (Se)-Total	0.00008	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Sodium (Na)-Total	<0.50	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Thallium (Tl)-Total	0.000017	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Uranium (U)-Total	0.000192	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Zinc (Zn)-Total	0.005	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Aluminum (Al)-Dissolved	0.0136	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Arsenic (As)-Dissolved	<0.00010	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Cadmium (Cd)-Dissolved	<0.000010	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Calcium (Ca)-Dissolved	3.01	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Copper (Cu)-Dissolved	<0.00020	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Iron (Fe)-Dissolved	0.012	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Lead (Pb)-Dissolved	<0.000050	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Magnesium (Mg)-Dissolved	4.27	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Manganese (Mn)-Dissolved	0.0826	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Mercury (Hg)-Dissolved	<0.000010	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Molybdenum (Mo)-Dissolved	0.000133	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Nickel (Ni)-Dissolved	0.00109	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Potassium (K)-Dissolved	0.514	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Selenium (Se)-Dissolved	0.000096	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Sodium (Na)-Dissolved	<0.50	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Thallium (Tl)-Dissolved	<0.000010	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Uranium (U)-Dissolved	0.000033	mg/L	ALS
L1801067-1	MS-08	19-Jul-16	Zinc (Zn)-Dissolved	0.0034	mg/L	ALS
48375	MS-08	19-Jul-16	Acute Toxicity*	non-lethal	mortality %	Aquatox
L1805159-1	MS-08 (MMER Pre-Discharge)	26-Jul-16	Hardness (as CaCO ₃)	239	mg/L	ALS
L1805159-1	MS-08 (MMER Pre-Discharge)	26-Jul-16	pH	7.45	pH units	ALS
L1805159-1	MS-08 (MMER Pre-Discharge)	26-Jul-16	Total Suspended Solids	4.2	mg/L	ALS
L1805159-1	MS-08 (MMER Pre-Discharge)	26-Jul-16	Total Dissolved Solids	349	mg/L	ALS
L1805159-1	MS-08 (MMER Pre-Discharge)	26-Jul-16	Turbidity	NA	NTU	ALS
L1805159-1	MS-08 (MMER Pre-Discharge)	26-Jul-16	Alkalinity, Total (as CaCO ₃)	14	mg/L	ALS
L1805159-1	MS-08 (MMER Pre-Discharge)	26-Jul-16	Ammonia, Total (as N)	0.17	mg/L	ALS
L1805159-1	MS-08 (MMER Pre-Discharge)	26-Jul-16	Chloride (Cl)	3.25	mg/L	ALS
L1805159-1	MS-08 (MMER Pre-Discharge)	26-Jul-16	Fluoride (F)	0.028	mg/L	ALS
L1805159-1	MS-08 (MMER Pre-Discharge)	26-Jul-16	Nitrate (as N)	1.91	mg/L	ALS
L1805159-1	MS-08 (MMER Pre-Discharge)	26-Jul-16	Total Kjeldahl Nitrogen	0.43	mg/L	ALS
L1805159-1	MS-08 (MMER Pre-Discharge)	26-Jul-16	Phosphorus, Total	<0.0030	mg/L	ALS
L1805159-1	MS-08 (MMER Pre-Discharge)	26-Jul-16	Sulfate (SO ₄)	223	mg/L	ALS
L1805159-1	MS-08 (MMER Pre-Discharge)	26-Jul-16	Dissolved Organic Carbon	1.5	mg/L	ALS
L1805159-1	MS-08 (MMER Pre-Discharge)	26-Jul-16	Total Organic Carbon	<1.0	mg/L	ALS
L1805159-1	MS-08 (MMER Pre-Discharge)	26-Jul-16	Aluminum (Al)-Total	0.377	mg/L	ALS
L1805159-1	MS-08 (MMER Pre-Discharge)	26-Jul-16	Arsenic (As)-Total	<0.00010	mg/L	ALS
L1805159-1	MS-08 (MMER Pre-Discharge)	26-Jul-16	Cadmium (Cd)-Total	0.000062	mg/L	ALS
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TABLE 5.2

**BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT**

**2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATIONS**

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
L1796628-1	MS-MRY-6	11-Jul-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1796628-1	MS-MRY-6	11-Jul-16	Benzene	<0.50	ug/L	ALS
L1796628-1	MS-MRY-6	11-Jul-16	Ethylbenzene	<0.50	ug/L	ALS
L1796628-1	MS-MRY-6	11-Jul-16	Toluene	<0.50	ug/L	ALS
L1796628-1	MS-MRY-6	11-Jul-16	F1 (C6-C10)	<100	ug/L	ALS
L1796628-1	MS-MRY-6	11-Jul-16	F2 (C10-C16)	<100	ug/L	ALS
L1796628-1	MS-MRY-6	11-Jul-16	F3 (C16-C34)	310	ug/L	ALS
L1796628-1	MS-MRY-6	11-Jul-16	F4 (C34-C50)	<250	ug/L	ALS
L1796628-1	MS-MRY-6	11-Jul-16	Total Hydrocarbons (C6-C50)	<380	ug/L	ALS
L1792842-13	MS-MRY-13A	42556	Conductivity	840	uS/cm	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	pH	7.5	pH units	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	Total Dissolved Solids	485	mg/L	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	Alkalinity, Total (as CaCO3)	216	mg/L	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	Dissolved Organic Carbon	5.4	mg/L	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	Total Organic Carbon	5	mg/L	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	Mercury (Hg)-Total	<0.000010	mg/L	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	Aluminum (Al)-Total	<0.0030	mg/L	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	Antimony (Sb)-Total	0.00012	mg/L	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	Arsenic (As)-Total	0.00026	mg/L	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	Barium (Ba)-Total	0.052	mg/L	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	Cadmium (Cd)-Total	<0.000010	mg/L	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	Chromium (Cr)-Total	<0.00050	mg/L	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	Cobalt (Co)-Total	0.00016	mg/L	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	Copper (Cu)-Total	0.00102	mg/L	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	Iron (Fe)-Total	<0.030	mg/L	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	Lead (Pb)-Total	<0.000050	mg/L	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	Lithium (Li)-Total	0.0029	mg/L	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	Manganese (Mn)-Total	0.00583	mg/L	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	Molybdenum (Mo)-Total	0.000183	mg/L	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	Nickel (Ni)-Total	0.0123	mg/L	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	Selenium (Se)-Total	<0.010	mg/L	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	Strontium (Sr)-Total	0.0396	mg/L	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	Thallium (Tl)-Total	<0.00010	mg/L	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	Tin (Sn)-Total	<0.00010	mg/L	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	Titanium (Ti)-Total	<0.010	mg/L	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	Uranium (U)-Total	0.00117	mg/L	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	Vanadium (V)-Total	<0.0010	mg/L	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	Zinc (Zn)-Total	<0.0030	mg/L	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	Phenols (4AAP)	0.002	mg/L	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	F1 (C6-C10)	<100	ug/L	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	F2 (C10-C16)	<100	ug/L	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	F3 (C16-C34)	<250	ug/L	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	F4 (C34-C50)	<250	ug/L	ALS
L1792842-13	MS-MRY-13A	5-Jul-16	Total Hydrocarbons (C6-C50)	<380	ug/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	Conductivity	962	uS/cm	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	pH	7.81	pH units	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	Total Dissolved Solids	515	mg/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	Alkalinity, Total (as CaCO3)	192	mg/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	Dissolved Organic Carbon	5.2	mg/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	Total Organic Carbon	5	mg/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	Mercury (Hg)-Total	<0.000010	mg/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	Aluminum (Al)-Total	0.0376	mg/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	Antimony (Sb)-Total	<0.000010	mg/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	Arsenic (As)-Total	0.00016	mg/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	Barium (Ba)-Total	0.0521	mg/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	Cadmium (Cd)-Total	<0.000010	mg/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	Chromium (Cr)-Total	<0.00050	mg/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	Cobalt (Co)-Total	0.00021	mg/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	Copper (Cu)-Total	0.00137	mg/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	Iron (Fe)-Total	0.082	mg/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	Lead (Pb)-Total	0.000068	mg/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	Lithium (Li)-Total	0.0033	mg/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	Manganese (Mn)-Total	0.00457	mg/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	Molybdenum (Mo)-Total	0.000135	mg/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	Nickel (Ni)-Total	0.0114	mg/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	Selenium (Se)-Total	<0.010	mg/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	Strontium (Sr)-Total	0.0411	mg/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	Thallium (Tl)-Total	<0.00010	mg/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	Tin (Sn)-Total	<0.00010	mg/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	Titanium (Ti)-Total	<0.010	mg/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	Uranium (U)-Total	0.000631	mg/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	Vanadium (V)-Total	<0.010	mg/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	Zinc (Zn)-Total	<0.030	mg/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	Phenols (4AAP)	0.0016	mg/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	F1 (C6-C10)	<100	ug/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	F2 (C10-C16)	<100	ug/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	F3 (C16-C34)	<250	ug/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	F4 (C34-C50)	<250	ug/L	ALS
L1792842-12	MS-MRY-13B	4-Jul-16	Total Hydrocarbons (C6-C50)	<380	ug/L	ALS
L1796590-7	MS-MRY-13B	11-Jul-16	pH	7.93	pH units	ALS
L1796590-7	MS-MRY-13B	11-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1796590-7	MS-MRY-13B	11-Jul-16	Turbidity	0.49	mg/L	ALS
L1800901-1	MS-MRY-13B	18-Jul-16	Conductivity	1290	uS/cm	ALS
L1800901-1	MS-MRY-13B	18-Jul-16	pH	8.2	pH units	ALS
L1800901-1	MS-MRY-13B	18-Jul-16	Total Suspended Solids	10.1	mg/L	ALS
L1800901-1	MS-MRY-13B	18-Jul-16	Total Dissolved Solids	930	mg/L	ALS
L1800901-1	MS-MRY-13B	18-Jul-16	Alkalinity, Total (as CaCO3)	182	mg/L	ALS
L1800901-1	MS-MRY-13B	18-Jul-16	Dissolved Organic Carbon	3.6	mg/L	ALS
L1800901-1	MS-MRY-13B	18-Jul-16	Total Organic Carbon	4	mg/L	ALS
L1800901-1	MS-MRY-13B	18-Jul-16	Mercury (Hg)-Total	<0.000010	mg/L	ALS
L1800901-1	MS-MRY-13B	18-Jul-16	Aluminum (Al)-Total	0.0054	mg/L	ALS
L1800901-1	MS-MRY-13B	18-Jul-16	Antimony			

TABLE 5.2

**BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT**

**2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATIONS**

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
L1792842-9	MS-C-A	4-Jul-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1796590-8	MS-C-A	11-Jul-16	pH	7.71	pH units	ALS
L1796590-8	MS-C-A	11-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1796590-8	MS-C-A	11-Jul-16	Total Dissolved Solids	135	mg/L	ALS
L1796590-8	MS-C-A	11-Jul-16	Turbidity	0.34	NTU	ALS
L1800887-5	MS-C-A	18-Jul-16	Conductivity	266	uS/cm	ALS
L1800887-5	MS-C-A	18-Jul-16	pH	7.99	pH units	ALS
L1800887-5	MS-C-A	18-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1800887-5	MS-C-A	18-Jul-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1800887-5	MS-C-A	18-Jul-16	Nitrate (as N)	0.822	mg/L	ALS
L1800887-5	MS-C-A	18-Jul-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1803758-3	MS-C-A	25-Jul-16	pH	7.91	pH units	ALS
L1803758-3	MS-C-A	25-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1803758-3	MS-C-A	25-Jul-16	Total Dissolved Solids	140	mg/L	ALS
L1803758-3	MS-C-A	25-Jul-16	Turbidity	0.53	NTU	ALS
L1792842-10	MS-C-B	4-Jul-16	Conductivity	192	uS/cm	ALS
L1792842-10	MS-C-B	4-Jul-16	pH	7.6	pH units	ALS
L1792842-10	MS-C-B	4-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1792842-10	MS-C-B	4-Jul-16	Ammonia, Total (as N)	0.034	mg/L	ALS
L1792842-10	MS-C-B	4-Jul-16	Nitrate (as N)	0.55	mg/L	ALS
L1792842-10	MS-C-B	4-Jul-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1796590-9	MS-C-B	12-Jul-16	pH	7.56	pH units	ALS
L1796590-9	MS-C-B	12-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1796590-9	MS-C-B	12-Jul-16	Total Dissolved Solids	138	mg/L	ALS
L1796590-9	MS-C-B	12-Jul-16	Turbidity	0.36	NTU	ALS
L1800887-6	MS-C-B	18-Jul-16	Conductivity	278	uS/cm	ALS
L1800887-6	MS-C-B	18-Jul-16	pH	8.08	pH units	ALS
L1800887-6	MS-C-B	18-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1800887-6	MS-C-B	18-Jul-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1800887-6	MS-C-B	18-Jul-16	Nitrate (as N)	0.97	mg/L	ALS
L1800887-6	MS-C-B	18-Jul-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1803758-4	MS-C-B	25-Jul-16	pH	7.71	pH units	ALS
L1803758-4	MS-C-B	25-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1803758-4	MS-C-B	25-Jul-16	Total Dissolved Solids	150	mg/L	ALS
L1803758-4	MS-C-B	25-Jul-16	Turbidity	0.43	NTU	ALS
L1792842-7	MS-C-C	4-Jul-16	Conductivity	867	uS/cm	ALS
L1792842-7	MS-C-C	4-Jul-16	pH	7.52	pH units	ALS
L1792842-7	MS-C-C	4-Jul-16	Total Suspended Solids	3.6	mg/L	ALS
L1792842-7	MS-C-C	4-Jul-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1792842-7	MS-C-C	4-Jul-16	Nitrate (as N)	6.73	mg/L	ALS
L1792842-7	MS-C-C	4-Jul-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1803758-4	MS-C-C	11-Jul-16	pH	7.92	pH units	ALS
L1803758-4	MS-C-C	11-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1803758-4	MS-C-C	11-Jul-16	Total Dissolved Solids	413	mg/L	ALS
L1803758-4	MS-C-C	11-Jul-16	Turbidity	0.79	NTU	ALS
L1800887-7	MS-C-C	18-Jul-16	Conductivity	909	uS/cm	ALS
L1800887-7	MS-C-C	18-Jul-16	pH	8.21	pH units	ALS
L1800887-7	MS-C-C	18-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1800887-7	MS-C-C	18-Jul-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1800887-7	MS-C-C	18-Jul-16	Nitrate (as N)	8.3	mg/L	ALS
L1800887-7	MS-C-C	18-Jul-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1803758-5	MS-C-C	25-Jul-16	pH	7.95	pH units	ALS
L1803758-5	MS-C-C	25-Jul-16	Total Suspended Solids	4.8	mg/L	ALS
L1803758-5	MS-C-C	25-Jul-16	Total Dissolved Solids	525	mg/L	ALS
L1803758-5	MS-C-C	25-Jul-16	Turbidity	1.44	NTU	ALS
L1796590-5	MS-C-D	11-Jul-16	Conductivity	842	uS/cm	ALS
L1796590-5	MS-C-D	11-Jul-16	pH	7.92	pH units	ALS
L1796590-5	MS-C-D	11-Jul-16	Total Suspended Solids	4.4	mg/L	ALS
L1796590-5	MS-C-D	11-Jul-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1796590-5	MS-C-D	11-Jul-16	Nitrate (as N)	5.07	mg/L	ALS
L1796590-5	MS-C-D	11-Jul-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1800887-8	MS-C-D	18-Jul-16	Conductivity	867	uS/cm	ALS
L1800887-8	MS-C-D	18-Jul-16	pH	8.43	pH units	ALS
L1800887-8	MS-C-D	18-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1800887-8	MS-C-D	18-Jul-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1800887-8	MS-C-D	18-Jul-16	Nitrate (as N)	5.77	mg/L	ALS
L1800887-8	MS-C-D	18-Jul-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1803758-6	MS-C-D	25-Jul-16	pH	8.4	pH units	ALS
L1803758-6	MS-C-D	25-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1803758-6	MS-C-D	25-Jul-16	Total Dissolved Solids	485	mg/L	ALS
L1803758-6	MS-C-D	25-Jul-16	Turbidity	1.68	NTU	ALS
L1792842-5	MS-C-E	4-Jul-16	Conductivity	571	uS/cm	ALS
L1792842-5	MS-C-E	4-Jul-16	pH	7.89	pH units	ALS
L1792842-5	MS-C-E	4-Jul-16	Total Suspended Solids	8.8	mg/L	ALS
L1792842-5	MS-C-E	4-Jul-16	Ammonia, Total (as N)	0.041	mg/L	ALS
L1792842-5	MS-C-E	4-Jul-16	Nitrate (as N)	2.22	mg/L	ALS
L1792842-5	MS-C-E	4-Jul-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1796590-6	MS-C-E	11-Jul-16	pH	7.62	pH units	ALS
L1796590-6	MS-C-E	11-Jul-16	Total Suspended Solids	2	mg/L	ALS
L1796590-6	MS-C-E	11-Jul-16	Total Dissolved Solids	550	mg/L	ALS
L1796590-6	MS-C-E	11-Jul-16	Turbidity	1.33	NTU	ALS
L1800887-9	MS-C-E	18-Jul-16	Conductivity	780	uS/cm	ALS
L1800887-9	MS-C-E	18-Jul-16	pH	8.29	pH units	ALS
L1800887-9	MS-C-E	18-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1800887-9	MS-C-E	18-Jul-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1800887-9	MS-C-E	18-Jul-16	Nitrate (as N)	5.13	mg/L	ALS
L1800887-9	MS-C-E	18-Jul-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1803758-11	MS-C-E	25-Jul-16	pH	8.13	pH units	ALS
L1803758-11	MS-C-E	25-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1803758-11	MS-C-E	25-Jul-16	Total Dissolved Solids	460	mg/L	ALS
L1803758-11	MS-C-E	25-Jul-16	Turbidity	0.96	NTU	ALS
L1792842-6	MS-C-E01	4-Jul-16	Conductivity	588	uS/cm	ALS
L1792842-6	MS-C-E01	4-Jul-16	pH	7.89	pH units	ALS
L1792842-6	MS-C-E01	4-Jul-16	Total Suspended Solids	10	mg/L	ALS
L1792842-6	MS-C-E01	4-Jul-16	Ammonia, Total (as N)	0.06	mg/L	ALS
L1792842-6	MS-C-E01	4-Jul-16	Nitrate (as N)	2.36	mg/L	ALS
L1792842-6	MS-C-E01	4-Jul-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1792842-11	MS-C-F	4-Jul-16	Conductivity	233	uS/cm	ALS
L1792842-11	MS-C-F	4-Jul-16	pH	8.19	pH units	ALS
L1792842-11	MS-C-F	4-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1792842-11	MS-C-F	4-Jul-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1792842-11	MS-C-F	4-Jul-16	Nitrate (as N)	0.956	mg/L	ALS
L1792842-11	MS-C-F	4-Jul-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1796590-10	MS-C-F	12-Jul-16	pH	8.16	pH units	ALS
L1796590-10	MS-C-F (See Note)	12-Jul-16	Total Suspended Solids	20.4	mg/L	ALS
L1796590-10	MS-C-F	12-Jul-16	Total Dissolved Solids	175		

TABLE 5.2

**BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT**

**2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATIONS**

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
L1796590-12	MS-C-G (See Note)	12-Jul-16	Total Suspended Solids	24	mg/L	ALS
L1796590-12	MS-C-G	12-Jul-16	Total Dissolved Solids	105	mg/L	ALS
L1796590-12	MS-C-G	12-Jul-16	Turbidity	0.58	NTU	ALS
L1800887-11	MS-C-G	18-Jul-16	Conductivity	209	uS/cm	ALS
L1800887-11	MS-C-G	18-Jul-16	pH	8.19	pH units	ALS
L1800887-11	MS-C-G	18-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1800887-11	MS-C-G	18-Jul-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1800887-11	MS-C-G	18-Jul-16	Nitrate (as N)	0.239	mg/L	ALS
L1800887-11	MS-C-G	18-Jul-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1803758-7	MS-C-G	25-Jul-16	pH	7.72	pH units	ALS
L1803758-7	MS-C-G	25-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1803758-7	MS-C-G	25-Jul-16	Total Dissolved Solids	110	mg/L	ALS
L1803758-7	MS-C-G	25-Jul-16	Turbidity	0.21	NTU	ALS
L1800887-12	MS-C-G01	18-Jul-16	Conductivity	209	uS/cm	ALS
L1800887-12	MS-C-G01	18-Jul-16	pH	8.17	pH units	ALS
L1800887-12	MS-C-G01	18-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1800887-12	MS-C-G01	18-Jul-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1800887-12	MS-C-G01	18-Jul-16	Nitrate (as N)	0.209	mg/L	ALS
L1800887-12	MS-C-G01	18-Jul-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1800887-13	MS-C-H	18-Jul-16	Conductivity	210	uS/cm	ALS
L1800887-13	MS-C-H	18-Jul-16	pH	8.28	pH units	ALS
L1800887-13	MS-C-H	18-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1800887-13	MS-C-H	18-Jul-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1800887-13	MS-C-H	18-Jul-16	Nitrate (as N)	<0.020	mg/L	ALS
L1800887-13	MS-C-H	18-Jul-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1803758-8	MS-C-H	25-Jul-16	pH	8.09	pH units	ALS
L1803758-8	MS-C-H	25-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1803758-8	MS-C-H	25-Jul-16	Total Dissolved Solids	105	mg/L	ALS
L1803758-8	MS-C-H	25-Jul-16	Turbidity	0.31	NTU	ALS
L1792842-1	MQ-C-A	4-Jul-16	Conductivity	115	uS/cm	ALS
L1792842-1	MQ-C-A	4-Jul-16	pH	7.8	pH units	ALS
L1792842-1	MQ-C-A	4-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1792842-1	MQ-C-A	4-Jul-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1792842-1	MQ-C-A	4-Jul-16	Nitrate (as N)	0.05	mg/L	ALS
L1792842-1	MQ-C-A	4-Jul-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1796590-1	MQ-C-A	11-Jul-16	pH	8.01	pH units	ALS
L1796590-1	MQ-C-A	11-Jul-16	Total Suspended Solids	3.2	mg/L	ALS
L1796590-1	MQ-C-A	11-Jul-16	Total Dissolved Solids	100	mg/L	ALS
L1796590-1	MQ-C-A	11-Jul-16	Turbidity	0.3	NTU	ALS
L1800887-1	MQ-C-A	18-Jul-16	Conductivity	204	uS/cm	ALS
L1800887-1	MQ-C-A	18-Jul-16	pH	8.29	pH units	ALS
L1800887-1	MQ-C-A	18-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1800887-1	MQ-C-A	18-Jul-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1800887-1	MQ-C-A	18-Jul-16	Nitrate (as N)	0.031	mg/L	ALS
L1800887-1	MQ-C-A	18-Jul-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1803758-9	MQ-C-A	25-Jul-16	pH	8.12	pH units	ALS
L1803758-9	MQ-C-A	25-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1803758-9	MQ-C-A	25-Jul-16	Total Dissolved Solids	155	mg/L	ALS
L1803758-9	MQ-C-A	25-Jul-16	Turbidity	0.57	NTU	ALS
L1803758-9	MQ-C-A01	25-Jul-16	pH	8.09	pH units	ALS
L1803758-9	MQ-C-A01	25-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1803758-9	MQ-C-A01	25-Jul-16	Total Dissolved Solids	145	mg/L	ALS
L1803758-9	MQ-C-A01	25-Jul-16	Turbidity	0.76	NTU	ALS
L1792842-3	MQ-C-B	4-Jul-16	Conductivity	811	uS/cm	ALS
L1792842-3	MQ-C-B	4-Jul-16	pH	7.8	pH units	ALS
L1792842-3	MQ-C-B	4-Jul-16	Total Suspended Solids	2.8	mg/L	ALS
L1792842-3	MQ-C-B	4-Jul-16	Ammonia, Total (as N)	2.66	mg/L	ALS
L1792842-3	MQ-C-B	4-Jul-16	Nitrate (as N)	14.4	mg/L	ALS
L1792842-3	MQ-C-B	4-Jul-16	Oil and Grease, Total	<2.0	mg/L	ALS
48240	MQ-C-B	4-Jul-16	Acute Toxicity	non-lethal	mortality %	Aquatox
L1796590-3	MQ-C-B	11-Jul-16	pH	7.74	pH units	ALS
L1796590-3	MQ-C-B	11-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1796590-3	MQ-C-B	11-Jul-16	Total Dissolved Solids	760	mg/L	ALS
L1796590-3	MQ-C-B	11-Jul-16	Turbidity	2.07	NTU	ALS
L1800887-2	MQ-C-B	18-Jul-16	Conductivity	1110	uS/cm	ALS
L1800887-2	MQ-C-B	18-Jul-16	pH	8.14	pH units	ALS
L1800887-2	MQ-C-B	18-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1800887-2	MQ-C-B	18-Jul-16	Ammonia, Total (as N)	2.36	mg/L	ALS
L1800887-2	MQ-C-B	18-Jul-16	Nitrate (as N)	16.5	mg/L	ALS
L1800887-2	MQ-C-B	18-Jul-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1803758-1	MQ-C-B	25-Jul-16	pH	8.09	pH units	ALS
L1803758-1	MQ-C-B	25-Jul-16	Total Suspended Solids	2	mg/L	ALS
L1803758-1	MQ-C-B	25-Jul-16	Total Dissolved Solids	275	mg/L	ALS
L1803758-1	MQ-C-B	25-Jul-16	Turbidity	3.08	NTU	ALS
L1792842-2	MQ-C-D	4-Jul-16	Conductivity	361	uS/cm	ALS
L1792842-2	MQ-C-D	4-Jul-16	pH	8.28	pH units	ALS
L1792842-2	MQ-C-D	4-Jul-16	Total Suspended Solids	4.4	mg/L	ALS
L1792842-2	MQ-C-D	4-Jul-16	Ammonia, Total (as N)	0.245	mg/L	ALS
L1792842-2	MQ-C-D	4-Jul-16	Nitrate (as N)	0.921	mg/L	ALS
L1792842-2	MQ-C-D	4-Jul-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1796590-2	MQ-C-D	11-Jul-16	pH	8.34	pH units	ALS
L1796590-2	MQ-C-D	11-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1796590-2	MQ-C-D	11-Jul-16	Total Dissolved Solids	219	mg/L	ALS
L1796590-2	MQ-C-D	11-Jul-16	Turbidity	2.68	NTU	ALS
L1800887-3	MQ-C-D	18-Jul-16	Conductivity	410	uS/cm	ALS
L1800887-3	MQ-C-D	18-Jul-16	pH	8.32	pH units	ALS
L1800887-3	MQ-C-D	18-Jul-16	Total Suspended Solids	2	mg/L	ALS
L1800887-3	MQ-C-D	18-Jul-16	Ammonia, Total (as N)	0.343	mg/L	ALS
L1800887-3	MQ-C-D	18-Jul-16	Nitrate (as N)	1.22	mg/L	ALS
L1800887-3	MQ-C-D	18-Jul-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1803758-2	MQ-C-D	25-Jul-16	pH	8.3	pH units	ALS
L1803758-2	MQ-C-D	25-Jul-16	Total Suspended Solids	2	mg/L	ALS
L1803758-2	MQ-C-D	25-Jul-16	Total Dissolved Solids	210	mg/L	ALS
L1803758-2	MQ-C-D	25-Jul-16	Turbidity	2.66	NTU	ALS
L1796590-11	MQ-C-E	12-Jul-16	Conductivity	356	uS/cm	ALS
L1796590-11	MQ-C-E	12-Jul-16	pH	7.94	pH units	ALS
L1796590-11	MQ-C-E	12-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1796590-11	MQ-C-E	12-Jul-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1796590-11	MQ-C-E	12-Jul-16	Nitrate (as N)	3.91	mg/L	ALS
L1796590-11	MQ-C-E	12-Jul-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1800887-4	MQ-C-E	18-Jul-16	Conductivity	399	uS/cm	ALS
L1800887-4	MQ-C-E	18-Jul-16	pH	8.21	pH units	ALS
L1800887-4	MQ-C-E (Nee Note)	18-Jul-16	Total Suspended Solids	33	mg/L	ALS
L1800887-4	MQ-C-E	18-Jul-16	Ammonia, Total (as N)	0.035	mg/L	ALS
L1800887-4	MQ-C-E	18-Jul-16	Nitrate (as N)	5.53	mg/L	ALS
L1800887-4	MQ-C-E	18-Jul-16</				

TABLE 5.2

**BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT**

**2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATIONS**

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
L1815156-1	MP-04	17-Aug-16	F2 (C10-C16)	670	ug/L	ALS
L1815156-1	MP-04	17-Aug-16	F3 (C16-C34)	900	ug/L	ALS
L1815156-1	MP-04	17-Aug-16	F4 (C34-C50)	<250	ug/L	ALS
L1815156-1	MP-04	17-Aug-16	Total Hydrocarbons (C6-C50)	1570	ug/L	ALS
L1818479-2	MP-04	22-Aug-16	pH	6.67	pH units	ALS
L1818479-2	MP-04 (See Note)	22-Aug-16	Total Suspended Solids	16.4	mg/L	ALS
L1818479-2	MP-04	22-Aug-16	Turbidity	10.8	NTU	ALS
L1823628-1	MP-04	31-Aug-16	pH	8.7	pH units	ALS
L1823628-1	MP-04	31-Aug-16	Total Suspended Solids	4.8	mg/L	ALS
L1823628-1	MP-04	31-Aug-16	Lead (Pb)-Total	<0.0010	mg/L	ALS
L1823628-1	MP-04	31-Aug-16	Oil and Grease, Total	3	mg/L	ALS
L1823628-1	MP-04	31-Aug-16	Benzene	<0.50	ug/L	ALS
L1823628-1	MP-04	31-Aug-16	Ethylbenzene	<0.50	ug/L	ALS
L1823628-1	MP-04	31-Aug-16	Toluene	<0.50	ug/L	ALS
L1823628-1	MP-04	31-Aug-16	F1 (C6-C10)	<100	ug/L	ALS
L1823628-1	MP-04	31-Aug-16	F1-BTEX	<100	ug/L	ALS
L1823628-1	MP-04	31-Aug-16	F2 (C10-C16)	3390	ug/L	ALS
L1823628-1	MP-04	31-Aug-16	F3 (C16-C34)	5100	ug/L	ALS
L1823628-1	MP-04	31-Aug-16	F4 (C34-C50)	<250	ug/L	ALS
L1823628-1	MP-04	31-Aug-16	Total Hydrocarbons (C6-C50)	8490	ug/L	ALS
L1810168-10	MP-05	2-Aug-16	Hardness (as CaCO3)	289	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	pH	8.37	pH units	ALS
L1810168-10	MP-05	2-Aug-16	Total Suspended Solids	6.9	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Total Dissolved Solids	861	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Turbidity	7.54	NTU	ALS
L1810168-10	MP-05	2-Aug-16	Alkalinity, Total (as CaCO3)	521	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Ammonia, Total (as N)	0.028	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Chloride (Cl)	314	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Fluoride (F)	0.506	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Nitrate (as N)	7.99	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Total Kjeldahl Nitrogen	0.79	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Phosphorus, Total	0.0188	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Sulfate (SO4)	83.9	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Dissolved Organic Carbon	4.8	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Total Organic Carbon	4.8	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Aluminum (Al)-Total	0.154	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Arsenic (As)-Total	0.00033	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Cadmium (Cd)-Total	<0.000010	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Calcium (Ca)-Total	56.9	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Copper (Cu)-Total	0.0015	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Iron (Fe)-Total	0.157	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Lead (Pb)-Total	0.00016	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Magnesium (Mg)-Total	35.2	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Manganese (Mn)-Total	0.00867	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Mercury (Hg)-Total	<0.000010	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Molybdenum (Mo)-Total	0.00773	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Nickel (Ni)-Total	0.00064	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Potassium (K)-Total	13.9	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Selenium (Se)-Total	0.000139	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Sodium (Na)-Total	163	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Thallium (Tl)-Total	0.000013	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Uranium (U)-Total	0.0179	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Zinc (Zn)-Total	0.021	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Aluminum (Al)-Dissolved	0.0297	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Arsenic (As)-Dissolved	0.00031	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Cadmium (Cd)-Dissolved	<0.000010	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Calcium (Ca)-Dissolved	56.8	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Copper (Cu)-Dissolved	0.00124	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Iron (Fe)-Dissolved	<0.010	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Lead (Pb)-Dissolved	<0.00050	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Magnesium (Mg)-Dissolved	35.9	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Manganese (Mn)-Dissolved	0.0037	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Mercury (Hg)-Dissolved	<0.000010	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Molybdenum (Mo)-Dissolved	0.00739	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Nickel (Ni)-Dissolved	<0.00050	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Potassium (K)-Dissolved	14	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Selenium (Se)-Dissolved	0.000174	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Sodium (Na)-Dissolved	178	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Thallium (Tl)-Dissolved	<0.000010	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Uranium (U)-Dissolved	0.0172	mg/L	ALS
L1810168-10	MP-05	2-Aug-16	Zinc (Zn)-Dissolved	0.0172	mg/L	ALS
L1813138-1	MP-05	13-Aug-16	pH	8.44	pH units	ALS
L1813138-1	MP-05	13-Aug-16	Total Suspended Solids	6.4	mg/L	ALS
L1813138-1	MP-05	13-Aug-16	Total Dissolved Solids	667	mg/L	ALS
L1813138-1	MP-05	13-Aug-16	Turbidity	13.8	NTU	ALS
L1810168-9	MP-06	2-Aug-16	Hardness (as CaCO3)	458	mg/L	ALS
L1810168-9	MP-06	2-Aug-16	pH	8.06	pH units	ALS
L1810168-9	MP-06	2-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1810168-9	MP-06	2-Aug-16	Total Dissolved Solids	892	mg/L	ALS
L1810168-9	MP-06	2-Aug-16	Turbidity	1.93	NTU	ALS
L1810168-9	MP-06	2-Aug-16	Alkalinity, Total (as CaCO3)	53	mg/L	ALS
L1810168-9	MP-06	2-Aug-16	Ammonia, Total (as N)	0.032	mg/L	ALS
L1810168-9	MP-06	2-Aug-16	Chloride (Cl)	200	mg/L	ALS
L1810168-9	MP-06	2-Aug-16	Fluoride (F)	0.127	mg/L	ALS
L1810168-9	MP-06	2-Aug-16	Nitrate (as N)	3.79	mg/L	ALS
L1810168-9	MP-06	2-Aug-16	Total Kjeldahl Nitrogen	0.51	mg/L	ALS
L1810168-9	MP-06	2-Aug-16	Phosphorus, Total	0.0084	mg/L	ALS
L1810168-9	MP-06	2-Aug-16	Sulfate (SO4)	308	mg/L	ALS
L1810168-9	MP-06	2-Aug-16	Dissolved Organic Carbon	2.6	mg/L	ALS
L1810168-9	MP-06	2-Aug-16	Total Organic Carbon	2.5	mg/L	ALS
L1810168-9	MP-06	2-Aug-16	Aluminum (Al)-Total	0.036	mg/L	ALS
L1810168-9	MP-06	2-Aug-16	Arsenic (As)-Total	0.0002	mg/L	ALS
L1810168-9	MP-06	2-Aug-16	Cadmium (Cd)-Total	<0.000010	mg/L	ALS
L1810168-9	MP-06	2-Aug-16	Calcium (Ca)-Total	66.7	mg/L	ALS
L1810168-9	MP-06	2-Aug-16	Copper (Cu)-Total	<0.0010	mg/L	ALS
L1810168-9	MP-06	2-Aug-16	Iron (Fe)-Total	<0.050	mg/L	ALS
L1810168-9	MP-06	2-Aug-16	Lead (Pb)-Total	<0.00010	mg/L	ALS
L1810168-9	MP-06	2-Aug-16	Magnesium (Mg)-Total	67.1	mg/L	ALS
L1810168-9	MP-06	2-Aug-16	Manganese (Mn)-Total	0.0166	mg/L	ALS
L1810168-9	MP-06	2-Aug-16	Mercury (Hg)-Total	<0.000010	mg/L	ALS
L1810168-9	MP-06	2-Aug				

TABLE 5.2

**BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT**

**2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATIONS**

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
L1810168-7	MP-C-B	2-Aug-16	Ammonia, Total (as N)	0.034	mg/L	ALS
L1810168-7	MP-C-B	2-Aug-16	Nitrate (as N)	1.2	mg/L	ALS
L1810168-7	MP-C-B	2-Aug-16	Oil & Grease - Total	<4.0	mg/L	ALS
L1818479-8	MP-C-B	23-Aug-16	pH	8.31	pH units	ALS
L1818479-8	MP-C-B	23-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1818479-8	MP-C-B	23-Aug-16	Total Dissolved Solids	355	mg/L	ALS
L1818479-8	MP-C-B	23-Aug-16	Turbidity	1.45	NTU	ALS
L1823639-5	MP-C-B	30-Aug-16	Conductivity	735	uS/cm	ALS
L1823639-5	MP-C-B	30-Aug-16	pH	8.35	pH units	ALS
L1823639-5	MP-C-B	30-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1823639-5	MP-C-B	30-Aug-16	Ammonia, Total (as N)	0.036	mg/L	ALS
L1823639-5	MP-C-B	30-Aug-16	Nitrate (as N)	1.28	mg/L	ALS
L1823639-5	MP-C-B	30-Aug-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1810168-6	MP-C-B01	2-Aug-16	Conductivity	612	uS/cm	ALS
L1810168-6	MP-C-B01	2-Aug-16	pH	8.37	pH units	ALS
L1810168-6	MP-C-B01	2-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1810168-6	MP-C-B01	2-Aug-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1810168-6	MP-C-B01	2-Aug-16	Nitrate (as N)	1.34	mg/L	ALS
L1810168-6	MP-C-B01	2-Aug-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1810482-4	MP-C-B01	8-Aug-16	pH	8.42	uS/cm	ALS
L1810482-4	MP-C-B01	8-Aug-16	Total Suspended Solids	<2.0	pH units	ALS
L1810482-4	MP-C-B01	8-Aug-16	Total Dissolved Solids	292	mg/L	ALS
L1810482-4	MP-C-B01	8-Aug-16	Turbidity	2.41	mg/L	ALS
L1815157-4	MP-C-B01	16-Aug-16	Conductivity	727	uS/cm	ALS
L1815157-4	MP-C-B01	16-Aug-16	pH	8.37	pH units	ALS
L1815157-4	MP-C-B01	16-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1815157-4	MP-C-B01	16-Aug-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1815157-4	MP-C-B01	16-Aug-16	Nitrate (as N)	2.09	mg/L	ALS
L1815157-4	MP-C-B01	42598	Oil & Grease - Total	<2.0	mg/L	ALS
L1818479-7	MP-C-B01	23-Aug-16	pH	8.26	pH units	ALS
L1818479-7	MP-C-B01	23-Aug-16	Total Suspended Solids	4.4	mg/L	ALS
L1818479-7	MP-C-B01	23-Aug-16	Total Dissolved Solids	355	mg/L	ALS
L1818479-7	MP-C-B01	23-Aug-16	Turbidity	2.54	NTU	ALS
L1823639-4	MP-C-B01	30-Aug-16	Conductivity	732	uS/cm	ALS
L1823639-4	MP-C-B01	30-Aug-16	pH	8.32	pH units	ALS
L1823639-4	MP-C-B01	30-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1823639-4	MP-C-B01	30-Aug-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1823639-4	MP-C-B01	30-Aug-16	Nitrate (as N)	1.7	mg/L	ALS
L1823639-4	MP-C-B01	30-Aug-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1810168-8	MP-C-H	2-Aug-16	Conductivity	367	uS/cm	ALS
L1810168-8	MP-C-H	2-Aug-16	pH	8.36	pH units	ALS
L1810168-8	MP-C-H	2-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1810168-8	MP-C-H	2-Aug-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1810168-8	MP-C-H	2-Aug-16	Nitrate (as N)	0.167	mg/L	ALS
L1810168-8	MP-C-H	2-Aug-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1810482-3	MP-C-H	8-Aug-16	pH	8.31	pH units	ALS
L1810482-3	MP-C-H	8-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1810482-3	MP-C-H	8-Aug-16	Total Dissolved Solids	162	mg/L	ALS
L1810482-3	MP-C-H	8-Aug-16	Turbidity	0.39	NTU	ALS
L1815157-3	MP-C-H	16-Aug-16	Conductivity	348	uS/cm	ALS
L1815157-3	MP-C-H	16-Aug-16	pH	8.35	pH units	ALS
L1815157-3	MP-C-H	16-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1815157-3	MP-C-H	16-Aug-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1815157-3	MP-C-H	16-Aug-16	Nitrate (as N)	0.102	mg/L	ALS
L1815157-3	MP-C-H	16-Aug-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1818479-9	MP-C-H	23-Aug-16	pH	8.27	pH units	ALS
L1818479-9	MP-C-H	23-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1818479-9	MP-C-H	23-Aug-16	Total Dissolved Solids	160	mg/L	ALS
L1818479-9	MP-C-H	23-Aug-16	Turbidity	0.14	NTU	ALS
L1823639-6	MP-C-H	30-Aug-16	Conductivity	389	uS/cm	ALS
L1823639-6	MP-C-H	30-Aug-16	pH	8.37	pH units	ALS
L1823639-6	MP-C-H	30-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1823639-6	MP-C-H	30-Aug-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1823639-6	MP-C-H	30-Aug-16	Nitrate (as N)	0.131	mg/L	ALS
L1823639-6	MP-C-H	30-Aug-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1810168-1	MP-Q1-01	2-Aug-16	Conductivity	342	uS/cm	ALS
L1810168-1	MP-Q1-01	2-Aug-16	pH	8.25	pH units	ALS
L1810168-1	MP-Q1-01	2-Aug-16	Total Suspended Solids	4.8	mg/L	ALS
L1810168-1	MP-Q1-01	2-Aug-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1810168-1	MP-Q1-01	2-Aug-16	Nitrate (as N)	1.23	mg/L	ALS
L1810168-1	MP-Q1-01	2-Aug-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1810168-2	MP-Q1-0101 (Duplicate)	2-Aug-16	Conductivity	342	uS/cm	ALS
L1810168-2	MP-Q1-0101 (Duplicate)	2-Aug-16	pH	8.29	pH units	ALS
L1810168-2	MP-Q1-0101 (Duplicate)	2-Aug-16	Total Suspended Solids	3.4	mg/L	ALS
L1810168-2	MP-Q1-0101 (Duplicate)	2-Aug-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1810168-2	MP-Q1-0101 (Duplicate)	2-Aug-16	Nitrate (as N)	1.23	mg/L	ALS
L1810168-2	MP-Q1-0101 (Duplicate)	2-Aug-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1810482-1	MP-Q1-01	8-Aug-16	pH	7.95	pH units	ALS
L1810482-1	MP-Q1-01	8-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1810482-1	MP-Q1-01	8-Aug-16	Total Dissolved Solids	172	mg/L	ALS
L1810482-1	MP-Q1-01	8-Aug-16	Turbidity	0.73	NTU	ALS
L1815157-1	MP-Q1-01	16-Aug-16	Conductivity	347	uS/cm	ALS
L1815157-1	MP-Q1-01	16-Aug-16	pH	8.18	pH units	ALS
L1815157-1	MP-Q1-01	16-Aug-16	Total Suspended Solids	9.8	mg/L	ALS
L1815157-4	MP-Q1-01	16-Aug-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1815157-4	MP-Q1-01	16-Aug-16	Nitrate (as N)	0.816	mg/L	ALS
L1815157-4	MP-Q1-01	16-Aug-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1818479-3	MP-Q1-01	23-Aug-16	pH	8.04	pH units	ALS
L1818479-3	MP-Q1-01	23-Aug-16	Total Suspended Solids	2.8	mg/L	ALS
L1818479-3	MP-Q1-01	23-Aug-16	Total Dissolved Solids	170	mg/L	ALS
L1818479-3	MP-Q1-01	23-Aug-16	Turbidity	0.47	NTU	ALS
L1818479-4	MP-Q1-0103 (Travel Blank)	23-Aug-16	pH	6.05	pH units	ALS
L1818479-4	MP-Q1-0103 (Travel Blank)	23-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1818479-4	MP-Q1-0103 (Travel Blank)	23-Aug-16	Total Dissolved Solids	<20	mg/L	ALS
L1818479-4	MP-Q1-0103 (Travel Blank)	23-Aug-16	Turbidity	<0.10	NTU	ALS
L1823639-1	MP-Q1-01	30-Aug-16	Conductivity	419	uS/cm	ALS
L1823639-1	MP-Q1-01	30-Aug-16	pH	8.22	pH units	ALS
L1823639-1	MP-Q1-01	30-Aug-16	Total Suspended Solids	2.9	mg/L	ALS
L1823639-1	MP-Q1-01	30-Aug-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1823639-1	MP-Q1-01	30-Aug-16	Nitrate (as N)	1.38	mg/L	ALS
L1823639-1	MP-Q1-01	30-Aug-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1810168-3	MP-Q1-02	42584	Conductivity	752	uS/cm	ALS
L1810168-3	MP-Q1-02	2-Aug-16	pH	8		

TABLE 5.2

**BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT**

**2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATIONS**

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
L1818479-6	MP-Q1-0201 (Duplicate)	23-Aug-16	Total Suspended Solids	2	mg/L	ALS
L1818479-6	MP-Q1-0201 (Duplicate)	23-Aug-16	Total Dissolved Solids	410	mg/L	ALS
L1818479-6	MP-Q1-0201 (Duplicate)	23-Aug-16	Turbidity	0.28	NTU	ALS
L1823639-2	MP-Q1-02	30-Aug-16	Conductivity	838	uS/cm	ALS
L1823639-2	MP-Q1-02	30-Aug-16	pH	8.11	pH units	ALS
L1823639-2	MP-Q1-02	30-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1823639-2	MP-Q1-02	30-Aug-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1823639-2	MP-Q1-02	30-Aug-16	Nitrate (as N)	12.7	mg/L	ALS
L1823639-2	MP-Q1-02	30-Aug-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1823639-3	MP-Q1-0201 (Duplicate)	30-Aug-16	Conductivity	839	uS/cm	ALS
L1823639-3	MP-Q1-0201 (Duplicate)	30-Aug-16	pH	8.12	pH units	ALS
L1823639-3	MP-Q1-0201 (Duplicate)	30-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1823639-3	MP-Q1-0201 (Duplicate)	30-Aug-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1823639-3	MP-Q1-0201 (Duplicate)	30-Aug-16	Nitrate (as N)	12.7	mg/L	ALS
L1823639-3	MP-Q1-0201 (Duplicate)	30-Aug-16	Oil and Grease, Total	<2.0	mg/L	ALS
MARY RIVER MINE SITE						
L1807073-1	MS-01	2-Aug-16	pH	7.65	pH units	ALS
L1807073-1	MS-01	2-Aug-16	Total Suspended Solids	2	mg/L	ALS
L1807073-1	MS-01	2-Aug-16	Ammonia, Total (as N)	0.2	mg/L	ALS
L1807073-1	MS-01	2-Aug-16	Total Phosphorus	0.762	mg/L	ALS
L1807073-1	MS-01	2-Aug-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1807073-1	MS-01	2-Aug-16	Oil & Grease - Total	<2.0	mg/L	ALS
48524	MS-01	5-Aug-16	Acute Toxicity*	non-lethal	mortality %	Aquatox
L1810824-1	MS-01	9-Aug-16	Faecal Coliforms	2	CFU/100mL	ALS
L1810828-1	MS-MRY-6	9-Aug-16	pH	7.03	pH units	ALS
L1810828-1	MS-MRY-6	9-Aug-16	Total Suspended Solids	46.2	mg/L	ALS
L1810828-1	MS-MRY-6	9-Aug-16	Lead (Pb)-Total	0.00029	mg/L	ALS
L1810828-1	MS-MRY-6	9-Aug-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1810828-1	MS-MRY-6	9-Aug-16	Benzene	<0.50	ug/L	ALS
L1810828-1	MS-MRY-6	9-Aug-16	Ethylbenzene	<0.50	ug/L	ALS
L1810828-1	MS-MRY-6	9-Aug-16	Toluene	<0.50	ug/L	ALS
L1810828-1	MS-MRY-6	9-Aug-16	F1 (C6-C10)	<100	ug/L	ALS
L1810828-1	MS-MRY-6	9-Aug-16	F1-BTEX	<100	ug/L	ALS
L1810828-1	MS-MRY-6	9-Aug-16	F2 (C10-C16)	<100	ug/L	ALS
L1810828-1	MS-MRY-6	9-Aug-16	F3 (C16-C34)	420	ug/L	ALS
L1810828-1	MS-MRY-6	9-Aug-16	F4 (C34-C50)	<250	ug/L	ALS
L1810828-1	MS-MRY-6	9-Aug-16	Total Hydrocarbons (C6-C50)	420	ug/L	ALS
L1807074-1	MS-08	1-Aug-16	pH	7.19	pH units	ALS
L1807074-1	MS-08 (See Note)	1-Aug-16	Total Suspended Solids	18	mg/L	ALS
L1807074-1	MS-08	1-Aug-16	Turbidity	14.5	NTU	ALS
L1807074-1	MS-08	1-Aug-16	Arsenic (As)-Total	0.00013	mg/L	ALS
L1807074-1	MS-08	1-Aug-16	Copper (Cu)-Total	0.0018	mg/L	ALS
L1807074-1	MS-08	1-Aug-16	Lead (Pb)-Total	0.00044	mg/L	ALS
L1807074-1	MS-08	1-Aug-16	Nickel (Ni)-Total	0.034	mg/L	ALS
L1807074-1	MS-08	1-Aug-16	Zinc (Zn)-Total	0.0052	mg/L	ALS
L1809405-1	MS-08	5-Aug-16	pH	6.68	pH units	ALS
L1809405-1	MS-08	5-Aug-16	Total Suspended Solids	10	mg/L	ALS
L1809405-1	MS-08	5-Aug-16	Total Dissolved Solids	830	mg/L	ALS
L1809405-1	MS-08	5-Aug-16	Turbidity	17.2	NTU	ALS
L1810826-1	MS-08	9-Aug-16	pH	6.92	pH units	ALS
L1810826-1	MS-08	9-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1810826-1	MS-08	9-Aug-16	Aluminum (Al)-Total	0.035	mg/L	ALS
L1810826-1	MS-08	9-Aug-16	Arsenic (As)-Total	<0.00010	mg/L	ALS
L1810826-1	MS-08	9-Aug-16	Cadmium (Cd)-Total	0.000187	mg/L	ALS
L1810826-1	MS-08	9-Aug-16	Calcium (Ca)-Total	49.6	mg/L	ALS
L1810826-1	MS-08	9-Aug-16	Copper (Cu)-Total	0.0047	mg/L	ALS
L1810826-1	MS-08	9-Aug-16	Iron (Fe)-Total	1.41	mg/L	ALS
L1810826-1	MS-08	9-Aug-16	Lead (Pb)-Total	<0.00010	mg/L	ALS
L1810826-1	MS-08	9-Aug-16	Magnesium (Mg)-Total	130	mg/L	ALS
L1810826-1	MS-08	9-Aug-16	Manganese (Mn)-Total	5.69	mg/L	ALS
L1810826-1	MS-08	9-Aug-16	Mercury (Hg)-Total	<0.000010	mg/L	ALS
L1810826-1	MS-08	9-Aug-16	Molybdenum (Mo)-Total	<0.000050	mg/L	ALS
L1810826-1	MS-08	9-Aug-16	Nickel (Ni)-Total	0.0711	mg/L	ALS
L1810826-1	MS-08	9-Aug-16	Potassium (K)-Total	1.84	mg/L	ALS
L1810826-1	MS-08	9-Aug-16	Selenium (Se)-Total	0.00199	mg/L	ALS
L1810826-1	MS-08	9-Aug-16	Sodium (Na)-Total	2.41	mg/L	ALS
L1810826-1	MS-08	9-Aug-16	Thallium (Tl)-Total	0.000032	mg/L	ALS
L1810826-1	MS-08	9-Aug-16	Uranium (U)-Total	0.000058	mg/L	ALS
L1810826-1	MS-08	9-Aug-16	Zinc (Zn)-Total	0.0079	mg/L	ALS
L1815159-1	MS-08	16-Aug-16	Conductivity	1240	uS/cm	ALS
L1815159-1	MS-08	16-Aug-16	Hardness (as CaCO3)	683	mg/L	ALS
L1815159-1	MS-08	16-Aug-16	pH	7.03	pH units	ALS
L1815159-1	MS-08	16-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1815159-1	MS-08	16-Aug-16	Total Dissolved Solids	1030	mg/L	ALS
L1815159-1	MS-08	16-Aug-16	Turbidity	3.09	NTU	ALS
L1815159-1	MS-08	16-Aug-16	Alkalinity, Total (as CaCO3)	21	mg/L	ALS
L1815159-1	MS-08	16-Aug-16	Ammonia, Total (as N)	0.694	mg/L	ALS
L1815159-1	MS-08	16-Aug-16	Chloride (Cl)	7.9	mg/L	ALS
L1815159-1	MS-08	16-Aug-16	Fluoride (F)	<0.10	mg/L	ALS
L1815159-1	MS-08	16-Aug-16	Nitrate (as N)	4.95	mg/L	ALS
L1815159-1	MS-08	16-Aug-16	Total Kjeldahl Nitrogen	1.16	mg/L	ALS
L1815159-1	MS-08	16-Aug-16	Phosphorus, Total	0.048	mg/L	ALS
L1815159-1	MS-08	16-Aug-16	Sulfate (SO4)	688	mg/L	ALS
L1815159-1	MS-08	16-Aug-16	Dissolved Organic Carbon	<1.0	mg/L	ALS
L1815159-1	MS-08	16-Aug-16	Total Organic Carbon	<1.0	mg/L	ALS
L1815159-1	MS-08	16-Aug-16	Aluminum (Al)-Total	0.02	mg/L	ALS
L1815159-1	MS-08	16-Aug-16	Arsenic (As)-Total	<0.00010	mg/L	ALS
L1815159-1	MS-08	16-Aug-16	Cadmium (Cd)-Total	0.00019	mg/L	ALS
L1815159-1	MS-08	16-Aug-16	Calcium (Ca)-Total	54.8	mg/L	ALS
L1815159-1	MS-08	16-Aug-16	Copper (Cu)-Total	0.0022	mg/L	ALS
L1815159-1	MS-08	16-Aug-16	Iron (Fe)-Total	0.333	mg/L	ALS
L1815159-1	MS-08	16-Aug-16	Lead (Pb)-Total	<0.00010	mg/L	ALS
L1815159-1	MS-08	16-Aug-16	Magnesium (Mg)-Total	136	mg/L	ALS
L1815159-1	MS-08	16-Aug-16	Manganese (Mn)-Total	6.19	mg/L	ALS
L1815159-1	MS-08	16-Aug-16	Mercury (Hg)-Total	<0.000010	mg/L	ALS
L1815159-1	MS-08	16-Aug-16	Molybdenum (Mo)-Total	0.000052	mg/L	ALS
L1815159-1	MS-08	16-Aug-16	Nickel (Ni)-Total	0.0743	mg/L	ALS
L1815159-1	MS-08	16-Aug-16	Potassium (K)-Total	1.91	mg/L	ALS
L1815159-1	MS-08	16-Aug-16	Selenium (Se)-Total	0.00195	mg/L	ALS
L1815159-1	MS-08	16-Aug-16	Sodium (Na)-Total	2.73	mg/L	ALS
L1815159-1	MS-08	16-Aug-16	Thallium (Tl)-Total	0.000032	mg/L	ALS
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TABLE 5.2
**BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT**
**2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATIONS**

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
L1821470-1	MS-08	30-Aug-16	Turbidity	1.48	NTU	ALS
L1821470-1	MS-08	30-Aug-16	Alkalinity, Total (as CaCO ₃)	16	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Ammonia, Total (as N)	0.719	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Chloride (Cl)	7.91	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Fluoride (F)	0.112	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Nitrate (as N)	5.23	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Total Kjeldahl Nitrogen	1.13	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Phosphorus, Total	<0.030	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Sulfate (SO ₄)	668	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Dissolved Organic Carbon	<1.0	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Total Organic Carbon	<1.0	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Aluminum (Al)-Total	0.057	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Arsenic (As)-Total	<0.00010	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Cadmium (Cd)-Total	0.000174	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Calcium (Ca)-Total	54.7	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Copper (Cu)-Total	0.001	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Iron (Fe)-Total	0.268	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Lead (Pb)-Total	<0.00010	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Magnesium (Mg)-Total	136	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Manganese (Mn)-Total	6.11	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Mercury (Hg)-Total	<0.000010	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Molybdenum (Mo)-Total	<0.000050	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Nickel (Ni)-Total	0.0671	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Potassium (K)-Total	1.96	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Selenium (Se)-Total	0.002	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Sodium (Na)-Total	2.62	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Thallium (Tl)-Total	0.000034	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Uranium (U)-Total	0.000044	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Zinc (Zn)-Total	0.007	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Aluminum (Al)-Dissolved	0.0057	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Arsenic (As)-Dissolved	<0.00010	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Cadmium (Cd)-Dissolved	0.000184	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Calcium (Ca)-Dissolved	56.3	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Copper (Cu)-Dissolved	0.00076	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Iron (Fe)-Dissolved	<0.010	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Lead (Pb)-Dissolved	<0.000050	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Magnesium (Mg)-Dissolved	140	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Manganese (Mn)-Dissolved	6.45	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Mercury (Hg)-Dissolved	<0.000010	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Molybdenum (Mo)-Dissolved	<0.000050	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Nickel (Ni)-Dissolved	0.0674	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Potassium (K)-Dissolved	1.87	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Selenium (Se)-Dissolved	0.00214	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Sodium (Na)-Dissolved	2.7	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Thallium (Tl)-Dissolved	0.000031	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Uranium (U)-Dissolved	0.000027	mg/L	ALS
L1821470-1	MS-08	30-Aug-16	Zinc (Zn)-Dissolved	0.0086	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Conductivity	1160	uS/cm	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	pH	8.08	pH units	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Total Dissolved Solids	834	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Alkalinity, Total (as CaCO ₃)	195	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Nitrate (as N)	0.265	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Dissolved Organic Carbon	5.3	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Total Organic Carbon	5.3	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Mercury (Hg)-Total	<0.000010	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Aluminum (Al)-Total	<0.0030	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Antimony (Sb)-Total	0.00019	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Arsenic (As)-Total	0.00024	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Barium (Ba)-Total	0.0731	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Beryllium (Be)-Total	<0.00050	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Bismuth (Bi)-Total	<0.00050	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Boron (B)-Total	0.017	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Cadmium (Cd)-Total	0.000014	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Calcium (Ca)-Total	88.5	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Chromium (Cr)-Total	<0.00050	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Cobalt (Co)-Total	0.00018	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Copper (Cu)-Total	0.00124	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Iron (Fe)-Total	<0.030	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Lead (Pb)-Total	<0.000050	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Lithium (Li)-Total	0.0023	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Magnesium (Mg)-Total	71.3	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Manganese (Mn)-Total	0.00823	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Molybdenum (Mo)-Total	0.000208	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Nickel (Ni)-Total	0.0133	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Potassium (K)-Total	2.14	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Selenium (Se)-Total	<0.010	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Silicon (Si)-Total	5.16	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Silver (Ag)-Total	<0.000010	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Sodium (Na)-Total	13.3	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Strontium (Sr)-Total	0.0509	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Thallium (Tl)-Total	<0.0010	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Tin (Sn)-Total	<0.0010	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Titanium (Ti)-Total	<0.010	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Uranium (U)-Total	0.00176	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Vanadium (V)-Total	<0.010	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Zinc (Zn)-Total	<0.030	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Phenols (4AAP)	0.0047	mg/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	F1 (C6-C10)	<100	ug/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	F2 (C10-C16)	<100	ug/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	F3 (C16-C34)	<250	ug/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	F4 (C34-C50)	<250	ug/L	ALS
L1807077-6	MS-MRY-13A	1-Aug-16	Total Hydrocarbons (C6-C50)	<380	ug/L	ALS
L1807077-7	MS-MRY-13B	1-Aug-16	Conductivity	896	uS/cm	ALS
L1807077-7	MS-MRY-13B	1-Aug-16	pH	8.12	pH units	ALS</

TABLE 5.2
**BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT**
**2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATIONS**

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
L1807077-7	MS-MRY-13B	1-Aug-16	Tin (Sn)-Total	<0.00010	mg/L	ALS
L1807077-7	MS-MRY-13B	1-Aug-16	Titanium (Ti)-Total	<0.010	mg/L	ALS
L1807077-7	MS-MRY-13B	1-Aug-16	Uranium (U)-Total	0.000474	mg/L	ALS
L1807077-7	MS-MRY-13B	1-Aug-16	Vanadium (V)-Total	<0.010	mg/L	ALS
L1807077-7	MS-MRY-13B	1-Aug-16	Zinc (Zn)-Total	<0.030	mg/L	ALS
L1807077-7	MS-MRY-13B	1-Aug-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1807077-7	MS-MRY-13B	1-Aug-16	Phenols (4AAP)	<0.010	mg/L	ALS
L1807077-7	MS-MRY-13B	1-Aug-16	F1 (C6-C10)	<100	ug/L	ALS
L1807077-7	MS-MRY-13B	1-Aug-16	F2 (C10-C16)	<100	ug/L	ALS
L1807077-7	MS-MRY-13B	1-Aug-16	F3 (C16-C34)	<250	ug/L	ALS
L1807077-7	MS-MRY-13B	1-Aug-16	F4 (C34-C50)	<250	ug/L	ALS
L1807077-7	MS-MRY-13B	1-Aug-16	Total Hydrocarbons (C6-C50)	<380	ug/L	ALS
L1811524-1	MS-MRY-13B	9-Aug-16	pH	8.08	pH units	ALS
L1811524-1	MS-MRY-13B	9-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1811524-1	MS-MRY-13B	9-Aug-16	Total Dissolved Solids	619	mg/L	ALS
L1811524-1	MS-MRY-13B	9-Aug-16	Turbidity	0.38	NTU	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Conductivity	1230	uS/cm	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	pH	8.07	pH units	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Total Suspended Solids	2	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Total Dissolved Solids	767	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Alkalinity, Total (as CaCO ₃)	138	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Dissolved Organic Carbon	3.9	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Total Organic Carbon	3.9	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Mercury (Hg)-Total	<0.00010	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Aluminum (Al)-Total	<0.0030	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Antimony (Sb)-Total	0.00012	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Arsenic (As)-Total	0.00013	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Barium (Ba)-Total	0.0684	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Beryllium (Be)-Total	<0.00050	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Bismuth (Bi)-Total	<0.00050	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Boron (B)-Total	<0.010	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Cadmium (Cd)-Total	<0.00010	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Calcium (Ca)-Total	98.8	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Chromium (Cr)-Total	<0.00050	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Cobalt (Co)-Total	<0.0010	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Copper (Cu)-Total	0.00111	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Iron (Fe)-Total	<0.030	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Lead (Pb)-Total	<0.00050	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Lithium (Li)-Total	0.0032	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Magnesium (Mg)-Total	81.2	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Manganese (Mn)-Total	0.000625	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Molybdenum (Mo)-Total	0.000106	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Nickel (Ni)-Total	0.00861	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Potassium (K)-Total	2.23	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Selenium (Se)-Total	<0.010	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Silicon (Si)-Total	4.55	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Silver (Ag)-Total	<0.00010	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Sodium (Na)-Total	10.2	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Strontium (Sr)-Total	0.0499	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Thallium (Tl)-Total	<0.0010	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Tin (Sn)-Total	<0.0010	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Titanium (Ti)-Total	<0.010	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Uranium (U)-Total	0.000642	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Vanadium (V)-Total	<0.010	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Zinc (Zn)-Total	<0.030	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Phenols (4AAP)	0.0135	mg/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	F1 (C6-C10)	<100	ug/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	F2 (C10-C16)	<100	ug/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	F3 (C16-C34)	<250	ug/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	F4 (C34-C50)	<250	ug/L	ALS
L1818073-4	MS-MRY-13B	22-Aug-16	Total Hydrocarbons (C6-C50)	<380	ug/L	ALS
L1820695-5	MS-MRY-13B	29-Aug-16	pH	8.09	pH units	ALS
L1820695-5	MS-MRY-13B	29-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1820695-5	MS-MRY-13B	29-Aug-16	Total Dissolved Solids	1130	mg/L	ALS
L1820695-5	MS-MRY-13B	29-Aug-16	Turbidity	0.27	NTU	ALS
L1807077-9	MS-C-A	1-Aug-16	Conductivity	247	uS/cm	ALS
L1807077-9	MS-C-A	1-Aug-16	pH	8.05	pH units	ALS
L1807077-9	MS-C-A	1-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1807077-9	MS-C-A	1-Aug-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1807077-9	MS-C-A	1-Aug-16	Nitrate (as N)	0.935	mg/L	ALS
L1807077-9	MS-C-A	1-Aug-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1811476-5	MS-C-A	9-Aug-16	pH	7.95	pH units	ALS
L1811476-5	MS-C-A	9-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1811476-5	MS-C-A	9-Aug-16	Total Dissolved Solids	105	mg/L	ALS
L1811476-5	MS-C-A	9-Aug-16	Turbidity	0.74	NTU	ALS
L1818073-10	MS-C-A	22-Aug-16	Conductivity	239	uS/cm	ALS
L1818073-10	MS-C-A	22-Aug-16	pH	7.92	pH units	ALS
L1818073-10	MS-C-A	22-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1818073-10	MS-C-A	22-Aug-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1818073-10	MS-C-A	22-Aug-16	Nitrate (as N)	0.663	mg/L	ALS
L1818073-10	MS-C-A	22-Aug-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1820695-10	MS-C-A	29-Aug-16	pH	7.96	pH units	ALS
L1820695-10	MS-C-A	29-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1820695-10	MS-C-A	29-Aug-16	Total Dissolved Solids	140	mg/L	ALS
L1820695-10	MS-C-A	29-Aug-16	Turbidity	0.28	NTU	ALS
L1807077-8	MS-C-B	1-Aug-16	Conductivity	249	uS/cm	ALS
L1807077-8	MS-C-B	1-Aug-16	pH	8.05	pH units	ALS
L1807077-8	MS-C-B	1-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1807077-8	MS-C-B	1-Aug-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1807077-8	MS-C-B	1-Aug-16	Nitrate (as N)	0.997	mg/L	ALS
L1807077-8	MS-C-B	1-Aug-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1811476-6	MS-C-B	9-Aug-16	pH	7.86	pH units	ALS
L1811476-6	MS-C-B	9-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1811476-6	MS-C-B	9-Aug-16	Total Dissolved Solids	120	mg/L	ALS
L1811476-6	MS-C-B	9-Aug-16	Turbidity	0.78	NTU	ALS
L1818073-11	MS-C-B	22-Aug-16	Conductivity	251	uS/cm	ALS
L1818073-11	MS-C-B	22-Aug-16	pH	7.83	pH units	ALS
L1818073-11	MS-C-B	22-Aug-16	Total Suspended Solids	<2.0	mg/L	

TABLE 5.2

**BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT**

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WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATIONS**

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
L1807077-3	MS-C-D (Duplicate)	1-Aug-16	Ammonia, Total (as N)	0.029	mg/L	ALS
L1807077-3	MS-C-D (Duplicate)	1-Aug-16	Nitrate (as N)	6.21	mg/L	ALS
L1807077-3	MS-C-D (Duplicate)	1-Aug-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1811476-8	MS-C-D	9-Aug-16	pH	8.32	pH units	ALS
L1811476-8	MS-C-D	9-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1811476-8	MS-C-D	9-Aug-16	Total Dissolved Solids	443	mg/L	ALS
L1811476-8	MS-C-D	9-Aug-16	Turbidity	1.38	NTU	ALS
L1818073-6	MS-C-D	22-Aug-16	Conductivity	761	uS/cm	ALS
L1818073-6	MS-C-D	22-Aug-16	pH	8.37	pH units	ALS
L1818073-6	MS-C-D	22-Aug-16	Total Suspended Solids	5.2	mg/L	ALS
L1818073-6	MS-C-D	22-Aug-16	Ammonia, Total (as N)	0.054	mg/L	ALS
L1818073-6	MS-C-D	22-Aug-16	Nitrate (as N)	7.22	NTU	ALS
L1818073-6	MS-C-D	22-Aug-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1807077-1	MS-C-E	01-Aug-16	Conductivity	653	uS/cm	ALS
L1807077-1	MS-C-E	01-Aug-16	pH	8.16	pH units	ALS
L1807077-1	MS-C-E	01-Aug-16	Total Suspended Solids	10	mg/L	ALS
L1807077-1	MS-C-E	01-Aug-16	Ammonia, Total (as N)	0.024	mg/L	ALS
L1807077-1	MS-C-E	01-Aug-16	Nitrate (as N)	4.41	mg/L	ALS
L1807077-1	MS-C-E	01-Aug-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1811476-9	MS-C-E	9-Aug-16	pH	8.13	pH units	ALS
L1811476-9	MS-C-E	9-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1811476-9	MS-C-E	9-Aug-16	Total Dissolved Solids	385	mg/L	ALS
L1811476-9	MS-C-E	9-Aug-16	Turbidity	0.5	NTU	ALS
L1815158-2	MS-C-E	15-Aug-16	Conductivity	630	uS/cm	ALS
L1815158-2	MS-C-E	15-Aug-16	pH	8.27	pH units	ALS
L1815158-2	MS-C-E	15-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1815158-2	MS-C-E	15-Aug-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1815158-2	MS-C-E	15-Aug-16	Nitrate (as N)	4.73	mg/L	ALS
L1815158-2	MS-C-E	15-Aug-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1818073-5	MS-C-E	22-Aug-16	pH	8.09	pH units	ALS
L1818073-5	MS-C-E	22-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1818073-5	MS-C-E	22-Aug-16	Total Dissolved Solids	364	mg/L	ALS
L1818073-5	MS-C-E	22-Aug-16	Turbidity	0.38	NTU	ALS
L1820695-7	MS-C-E	29-Aug-16	pH	8.09	pH units	ALS
L1820695-7	MS-C-E	29-Aug-16	Total Suspended Solids	3.2	mg/L	ALS
L1820695-7	MS-C-E	29-Aug-16	Total Dissolved Solids	405	mg/L	ALS
L1820695-7	MS-C-E	29-Aug-16	Turbidity	0.66	NTU	ALS
L1807077-12	MS-C-F	1-Aug-16	Conductivity	336	uS/cm	ALS
L1807077-12	MS-C-F	1-Aug-16	pH	8.08	pH units	ALS
L1807077-12	MS-C-F	1-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1807077-12	MS-C-F	1-Aug-16	Ammonia, Total (as N)	0.03	mg/L	ALS
L1807077-12	MS-C-F	1-Aug-16	Nitrate (as N)	1.61	mg/L	ALS
L1807077-12	MS-C-F	1-Aug-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1811476-10	MS-C-F	9-Aug-16	pH	7.95	pH units	ALS
L1811476-10	MS-C-F	9-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1811476-10	MS-C-F	9-Aug-16	Total Dissolved Solids	140	mg/L	ALS
L1811476-10	MS-C-F	9-Aug-16	Turbidity	1.89	NTU	ALS
L1818073-1	MS-C-F	22-Aug-16	Conductivity	269	uS/cm	ALS
L1818073-1	MS-C-F	22-Aug-16	pH	8.18	pH units	ALS
L1818073-1	MS-C-F	22-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1818073-1	MS-C-F	22-Aug-16	Ammonia, Total (as N)	0.026	mg/L	ALS
L1818073-1	MS-C-F	22-Aug-16	Nitrate (as N)	0.951	mg/L	ALS
L1818073-1	MS-C-F	22-Aug-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1820695-9	MS-C-F	29-Aug-16	pH	8.14	pH units	ALS
L1820695-9	MS-C-F	29-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1820695-9	MS-C-F	29-Aug-16	Total Dissolved Solids	165	mg/L	ALS
L1820695-9	MS-C-F	29-Aug-16	Turbidity	0.41	NTU	ALS
L1807077-10	MS-C-G	1-Aug-16	Conductivity	192	uS/cm	ALS
L1807077-10	MS-C-G	1-Aug-16	pH	8.12	pH units	ALS
L1807077-10	MS-C-G	1-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1807077-10	MS-C-G	1-Aug-16	Ammonia, Total (as N)	0.021	mg/L	ALS
L1807077-10	MS-C-G	1-Aug-16	Nitrate (as N)	0.215	mg/L	ALS
L1807077-10	MS-C-G	1-Aug-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1811476-11	MS-C-G	9-Aug-16	pH	7.93	pH units	ALS
L1811476-11	MS-C-G	9-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1811476-11	MS-C-G	9-Aug-16	Total Dissolved Solids	105	mg/L	ALS
L1811476-11	MS-C-G	9-Aug-16	Turbidity	0.32	NTU	ALS
L1818073-3	MS-C-G	22-Aug-16	Conductivity	211	uS/cm	ALS
L1818073-3	MS-C-G	22-Aug-16	pH	7.8	pH units	ALS
L1818073-3	MS-C-G	22-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1818073-3	MS-C-G	22-Aug-16	Ammonia, Total (as N)	0.026	mg/L	ALS
L1818073-3	MS-C-G	22-Aug-16	Nitrate (as N)	0.866	mg/L	ALS
L1820695-11	MS-C-G	29-Aug-16	pH	7.89	pH units	ALS
L1820695-11	MS-C-G	29-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1820695-11	MS-C-G	29-Aug-16	Total Dissolved Solids	130	mg/L	ALS
L1820695-11	MS-C-G	29-Aug-16	Turbidity	0.17	NTU	ALS
L1807077-13	MS-C-H	1-Aug-16	Conductivity	240	uS/cm	ALS
L1807077-13	MS-C-H	1-Aug-16	pH	8.26	pH units	ALS
L1807077-13	MS-C-H	1-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1807077-13	MS-C-H	1-Aug-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1807077-13	MS-C-H	1-Aug-16	Nitrate (as N)	<0.020	mg/L	ALS
L1807077-13	MS-C-H	1-Aug-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1811476-12	MS-C-H	9-Aug-16	pH	8.16	pH units	ALS
L1811476-12	MS-C-H	9-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1811476-12	MS-C-H	9-Aug-16	Total Dissolved Solids	135	mg/L	ALS
L1811476-12	MS-C-H	9-Aug-16	Turbidity	0.54	NTU	ALS
L1815158-3	MS-C-H	15-Aug-16	Conductivity	248	uS/cm	ALS
L1815158-3	MS-C-H	15-Aug-16	pH	8.31	pH units	ALS
L1815158-3	MS-C-H	15-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1815158-3	MS-C-H	15-Aug-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1815158-3	MS-C-H	15-Aug-16	Nitrate (as N)	<0.020	mg/L	ALS
L1815158-3	MS-C-H	15-Aug-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1818073-2	MS-C-H	22-Aug-16	pH	8.2	pH units	ALS
L1818073-2	MS-C-H	22-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1818073-2	MS-C-H	22-Aug-16	Total Dissolved Solids	123	mg/L	ALS
L1818073-2	MS-C-H	22-Aug-16	Turbidity	0.52	NTU	ALS
L1820695-12	MS-C-H	29-Aug-16	pH	8.24	pH units	ALS
L1820695-12	MS-C-H	29-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1820695-12	MS-C-H	29-Aug-16	Total Dissolved Solids	140	mg/L	ALS
L1820695-12	MS-C-H	29-Aug-16	Turbidity	0.31	NTU	ALS
L1807076-1	MQ-C-A	1-Aug-16	Conductivity	288	uS/cm	ALS
L1807076-1	MQ-C-A	1-Aug-16	pH	8.21	pH units	ALS
L1807076-1	MQ-C-A	1-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1807076-1	MQ-C-A	1-Aug-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1807076-1	MQ-C-A	1-Aug-16	Nitrate (as N)	<0.020	mg/L	ALS
L1807076-1	MQ-C-A	1-Aug-16	Oil and Grease, Total	<2.0		

TABLE 5.2

**BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT**

**2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATIONS**

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
L1807077-14	MQ-C-B	5-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1807077-14	MQ-C-B	5-Aug-16	Ammonia, Total (as N)	0.284	mg/L	ALS
L1807077-14	MQ-C-B	5-Aug-16	Nitrate (as N)	2.37	mg/L	ALS
L1807077-14	MQ-C-B	5-Aug-16	Oil and Grease, Total	<2.0	mg/L	ALS
48525	MQ-C-B	5-Aug-16	Acute Toxicity*	non-lethal	mortality %	Aquatox
L1811476-2	MQ-C-B	9-Aug-16	pH	8.2	pH units	ALS
L1811476-2	MQ-C-B	9-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1811476-2	MQ-C-B	9-Aug-16	Total Dissolved Solids	265	mg/L	ALS
L1811476-2	MQ-C-B	9-Aug-16	Turbidity	1.14	NTU	ALS
L1818073-13	MQ-C-B	22-Aug-16	Conductivity	791	uS/cm	ALS
L1818073-13	MQ-C-B	22-Aug-16	pH	8.04	pH units	ALS
L1818073-13	MQ-C-B	22-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1818073-13	MQ-C-B	22-Aug-16	Ammonia, Total (as N)	0.407	mg/L	ALS
L1818073-13	MQ-C-B	22-Aug-16	Nitrate (as N)	7.09	mg/L	ALS
L1818073-13	MQ-C-B	22-Aug-16	Oil and Grease, Total	<2.0	mg/L	ALS
48754	MQ-C-B	23-Aug-16	Acute Toxicity*	non-lethal	mortality %	Aquatox
L1820695-2	MQ-C-B	29-Aug-16	pH	8.23	pH units	ALS
L1820695-2	MQ-C-B	29-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1820695-2	MQ-C-B	29-Aug-16	Total Dissolved Solids	300	mg/L	ALS
L1820695-2	MQ-C-B	29-Aug-16	Turbidity	1.03	NTU	ALS
L1807077-11	MQ-C-D	1-Aug-16	Conductivity	416	uS/cm	ALS
L1807077-11	MQ-C-D	1-Aug-16	pH	8.22	pH units	ALS
L1807077-11	MQ-C-D (See Note)	1-Aug-16	Total Suspended Solids	32.7	mg/L	ALS
L1807077-11	MQ-C-D	1-Aug-16	Ammonia, Total (as N)	0.301	mg/L	ALS
L1807077-11	MQ-C-D	1-Aug-16	Nitrate (as N)	1.93	mg/L	ALS
L1807077-11	MQ-C-D	1-Aug-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1811476-3	MQ-C-D	9-Aug-16	pH	8.08	pH units	ALS
L1811476-3	MQ-C-D	9-Aug-16	Total Suspended Solids	3.6	mg/L	ALS
L1811476-3	MQ-C-D	9-Aug-16	Total Dissolved Solids	233	mg/L	ALS
L1811476-3	MQ-C-D	9-Aug-16	Turbidity	4.1	NTU	ALS
L1815158-4	MQ-C-D	15-Aug-16	Conductivity	444	uS/cm	ALS
L1815158-4	MQ-C-D	15-Aug-16	pH	8.26	pH units	ALS
L1815158-4	MQ-C-D	15-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1815158-4	MQ-C-D	15-Aug-16	Ammonia, Total (as N)	0.296	mg/L	ALS
L1815158-4	MQ-C-D	15-Aug-16	Nitrate (as N)	2.49	mg/L	ALS
L1815158-4	MQ-C-D	15-Aug-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1818073-8	MQ-C-D	22-Aug-16	pH	8.15	pH units	ALS
L1818073-8	MQ-C-D	22-Aug-16	Total Suspended Solids	2	mg/L	ALS
L1818073-8	MQ-C-D	22-Aug-16	Total Dissolved Solids	219	mg/L	ALS
L1818073-8	MQ-C-D	22-Aug-16	Turbidity	2.32	NTU	ALS
L1820695-4	MQ-C-D	29-Aug-16	pH	8.53	pH units	ALS
L1820695-4	MQ-C-D	29-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1820695-4	MQ-C-D	29-Aug-16	Total Dissolved Solids	365	mg/L	ALS
L1820695-4	MQ-C-D	29-Aug-16	Turbidity	0.68	NTU	ALS
L1811476-4	MQ-C-E	9-Aug-16	pH	8.04	pH units	ALS
L1811476-4	MQ-C-E	9-Aug-16	Total Suspended Solids	5.6	mg/L	ALS
L1811476-4	MQ-C-E	9-Aug-16	Total Dissolved Solids	262	mg/L	ALS
L1811476-4	MQ-C-E	9-Aug-16	Turbidity	2.27	NTU	ALS
L1815158-1	MQ-C-E	15-Aug-16	Conductivity	422	uS/cm	ALS
L1815158-1	MQ-C-E	15-Aug-16	pH	8.23	pH units	ALS
L1815158-1	MQ-C-E	15-Aug-16	Total Suspended Solids	6.9	mg/L	ALS
L1815158-1	MQ-C-E	15-Aug-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1815158-1	MQ-C-E	15-Aug-16	Nitrate (as N)	7.3	mg/L	ALS
L1815158-1	MQ-C-E	15-Aug-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1818073-12	MQ-C-E	22-Aug-16	pH	8.2	pH units	ALS
L1818073-12	MQ-C-E	22-Aug-16	Total Suspended Solids	3.2	mg/L	ALS
L1818073-12	MQ-C-E	22-Aug-16	Total Dissolved Solids	215	mg/L	ALS
L1818073-12	MQ-C-E	22-Aug-16	Turbidity	2.41	NTU	ALS
L1820695-1	MQ-C-E	29-Aug-16	pH	8.1	pH units	ALS
L1820695-1	MQ-C-E	29-Aug-16	Total Suspended Solids	4	mg/L	ALS
L1820695-1	MQ-C-E	29-Aug-16	Total Dissolved Solids	245	mg/L	ALS
L1820695-1	MQ-C-E	29-Aug-16	Turbidity	1.07	NTU	ALS
MILNE PORT SITE						
L1828896-1	MP-01	13-Sep-16	pH	7.73	pH units	ALS
L1828896-1	MP-01	13-Sep-16	Total Suspended Solids	<2.0	mg/L	ALS
L1828896-1	MP-01	13-Sep-16	Ammonia, Total (as N)	0.065	mg/L	ALS
L1828896-1	MP-01	13-Sep-16	Total Phosphorus	9.37	mg/L	ALS
L1828896-1	MP-01	13-Sep-16	Biochemical Oxygen Demand	2.3	mg/L	ALS
L1828896-1	MP-01	13-Sep-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1832535-1	MP-01	20-Sep-16	pH	7.67	pH units	ALS
L1832535-1	MP-01	20-Sep-16	Total Suspended Solids	<2.0	mg/L	ALS
L1832535-1	MP-01	20-Sep-16	Ammonia, Total (as N)	0.097	mg/L	ALS
L1832535-1	MP-01	20-Sep-16	Total Phosphorus	11.9	mg/L	ALS
L1832535-1	MP-01	20-Sep-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1832535-1	MP-01	20-Sep-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1824250-1	MP-04	5-Sep-16	pH	8.73	pH units	ALS
L1824250-1	MP-04	5-Sep-16	Total Suspended Solids	2.8	mg/L	ALS
L1824250-1	MP-04	5-Sep-16	Lead (Pb)-Total	0.00039	mg/L	ALS
L1824250-1	MP-04	5-Sep-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1824250-1	MP-04	5-Sep-16	Benzene	<0.50	ug/L	ALS
L1824250-1	MP-04	5-Sep-16	Ethylbenzene	<0.50	ug/L	ALS
L1824250-1	MP-04	5-Sep-16	Toluene	<0.50	ug/L	ALS
L1824250-1	MP-04	5-Sep-16	F1 (C6-C10)	<100	ug/L	ALS
L1824250-1	MP-04	5-Sep-16	F1-BTEX	<100	ug/L	ALS
L1824250-1	MP-04	5-Sep-16	F2 (C10-C16)	340	ug/L	ALS
L1824250-1	MP-04	5-Sep-16	F3 (C16-C34)	710	ug/L	ALS
L1824250-1	MP-04	5-Sep-16	F4 (C34-C50)	<250	ug/L	ALS
L1824250-1	MP-04	5-Sep-16	Total Hydrocarbons (C6-C50)	1050	ug/L	ALS
L1824249-5	MP-C-B	6-Sep-16	Conductivity	705	uS/cm	ALS
L1824249-5	MP-C-B	6-Sep-16	pH	8.33	pH units	ALS
L1824249-5	MP-C-B	6-Sep-16	Total Suspended Solids	2.0	mg/L	ALS
L1824249-5	MP-C-B	6-Sep-16	Ammonia, Total (as N)	0.071	mg/L	ALS
L1824249-5	MP-C-B	6-Sep-16	Nitrate (as N)	1.37	mg/L	ALS
L1824249-5	MP-C-B	6-Sep-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1824249-4	MP-C-B01	6-Sep-16	Conductivity	737	uS/cm	ALS
L1824249-4	MP-C-B01	6-Sep-16	pH	8.34	pH units	ALS
L1824249-4	MP-C-B01	6-Sep-16	Total Suspended Solids	<2.0	mg/L	ALS
L1824249-4	MP-C-B01	6-Sep-16	Ammonia, Total (as N)	0.020	mg/L	ALS
L1824249-4	MP-C-B01	6-Sep-16	Nitrate (as N)	1.66	mg/L	ALS
L1824249-4	MP-C-B01	6-Sep-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1824249-6	MP-C-H	6-Sep-16	Conductivity	379	uS/cm	ALS
L1824249-6	MP-C-H	6-Sep-16	pH	8.36	pH units	ALS
L1824249-6	MP-C-H	6-Sep-16	Total Suspended Solids	<2.0	mg/L	ALS
L1824249-6	MP-C-H	6-Sep-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1824249-6	MP-C-H	6-Sep-16	Nitrate (as N)	0.150	mg/L	ALS
L1824249-6	MP-C-H	6-Sep-16</				

TABLE 5.2

**BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT**

**2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATIONS**

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
L1824254-12	MQ-C-A	5-Sep-16	Total Suspended Solids	<2.0	mg/L	ALS
L1824254-12	MQ-C-A	5-Sep-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1824254-12	MQ-C-A	5-Sep-16	Nitrate (as N)	0.028	mg/L	ALS
L1824254-12	MQ-C-A	5-Sep-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1824255-1	MQ-C-B	6-Sep-16	Conductivity	574	uS/cm	ALS
L1824255-1	MQ-C-B	6-Sep-16	pH	8.28	pH units	ALS
L1824255-1	MQ-C-B	6-Sep-16	Total Suspended Solids	2.4	mg/L	ALS
L1824255-1	MQ-C-B	6-Sep-16	Ammonia, Total (as N)	0.16	mg/L	ALS
L1824255-1	MQ-C-B	6-Sep-16	Nitrate (as N)	2.91	mg/L	ALS
L1824255-1	MQ-C-B	6-Sep-16	Oil and Grease, Total	<2.0	mg/L	ALS
48877	MQ-C-B	6-Sep-16	Acute Toxicity*	non-lethal	mortality %	Aquatox
L1824254-11	MQ-C-D	5-Sep-16	Conductivity	484	uS/cm	ALS
L1824254-11	MQ-C-D	5-Sep-16	pH	8.31	pH units	ALS
L1824254-11	MQ-C-D	5-Sep-16	Total Suspended Solids	<2.0	mg/L	ALS
L1824254-11	MQ-C-D	5-Sep-16	Ammonia, Total (as N)	0.215	mg/L	ALS
L1824254-11	MQ-C-D	5-Sep-16	Nitrate (as N)	2.4	mg/L	ALS
L1824254-11	MQ-C-D	5-Sep-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1824254-10	MQ-C-E	5-Sep-16	Conductivity	387	uS/cm	ALS
L1824254-10	MQ-C-E	5-Sep-16	pH	8.3	pH units	ALS
L1824254-10	MQ-C-E	5-Sep-16	Total Suspended Solids	6.8	mg/L	ALS
L1824254-10	MQ-C-E	5-Sep-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1824254-10	MQ-C-E	5-Sep-16	Nitrate (as N)	4.47	mg/L	ALS
L1824254-10	MQ-C-E	5-Sep-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1828895-1	MS-01	14-Sep-16	pH	7.86	pH units	ALS
L1828895-1	MS-01	14-Sep-16	Total Suspended Solids	<2	mg/L	ALS
L1828895-1	MS-01	14-Sep-16	Ammonia, Total (as N)	1.39	mg/L	ALS
L1828895-1	MS-01	14-Sep-16	Total Phosphorus	1.28	mg/L	ALS
L1828895-1	MS-01	14-Sep-16	Biochemical Oxygen Demand	5.3	mg/L	ALS
L1828895-1	MS-01	14-Sep-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1832540-1	MS-01	20-Sep-16	pH	7.91	pH units	ALS
L1832540-1	MS-01	20-Sep-16	Total Suspended Solids	<2	mg/L	ALS
L1832540-1	MS-01	20-Sep-16	Ammonia, Total (as N)	2.61	mg/L	ALS
L1832540-1	MS-01	20-Sep-16	Total Phosphorus	1.22	mg/L	ALS
L1832540-1	MS-01	20-Sep-16	Biochemical Oxygen Demand	8.4	mg/L	ALS
L1832540-1	MS-01	20-Sep-16	Oil & Grease - Total	<2.0	mg/L	ALS
L182889-1	MS-06 (see Note)	12-Sep-16	pH	7.98	pH units	ALS
L182889-1	MS-06	12-Sep-16	Total Suspended Solids	4.4	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Total Dissolved Solids	183	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Turbidity	7.50	NTU	ALS
L182889-1	MS-06	12-Sep-16	Alkalinity, Total (as CaCO3)	57	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Chloride (Cl)	9.89	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Fluoride (F)	0.088	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Nitrate (as N)	0.744	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Total Kjeldahl Nitrogen	0.41	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Phosphorus, Total	0.0099	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Sulfate (SO4)	78.4	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Dissolved Organic Carbon	4.7	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Total Organic Carbon	4.5	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Aluminum (Al)-Total	0.078	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Arsenic (As)-Total	0.00014	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Cadmium (Cd)-Total	<0.000010	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Calcium (Ca)-Total	25.4	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Copper (Cu)-Total	<0.0010	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Iron (Fe)-Total	0.110	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Lead (Pb)-Total	0.00013	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Magnesium (Mg)-Total	16.9	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Manganese (Mn)-Total	0.00658	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Mercury (Hg)-Total	<0.000010	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Molybdenum (Mo)-Total	0.00385	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Nickel (Ni)-Total	<0.00050	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Potassium (K)-Total	9.44	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Selenium (Se)-Total	0.000121	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Sodium (Na)-Total	4.01	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Thallium (Tl)-Total	0.000017	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Uranium (U)-Total	0.00372	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Zinc (Zn)-Total	<0.0030	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Aluminum (Al)-Dissolved	0.0162	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Arsenic (As)-Dissolved	0.00012	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Cadmium (Cd)-Dissolved	<0.000010	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Calcium (Ca)-Dissolved	26.0	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Copper (Cu)-Dissolved	0.00057	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Iron (Fe)-Dissolved	<0.010	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Lead (Pb)-Dissolved	<0.000050	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Magnesium (Mg)-Dissolved	16.6	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Manganese (Mn)-Dissolved	0.00337	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Mercury (Hg)-Dissolved	<0.000010	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Molybdenum (Mo)-Dissolved	0.00370	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Nickel (Ni)-Dissolved	<0.00050	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Potassium (K)-Dissolved	9.82	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Selenium (Se)-Dissolved	0.000097	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Sodium (Na)-Dissolved	4.08	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Thallium (Tl)-Dissolved	0.000019	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Uranium (U)-Dissolved	0.00353	mg/L	ALS
L182889-1	MS-06	12-Sep-16	Zinc (Zn)-Dissolved	<0.010	mg/L	ALS
L1823700-1	MS-08	1-Sep-16	pH	7.25	pH units	ALS
L1823700-1	MS-08	1-Sep-16	Total Suspended Solids	12.8	mg/L	ALS
L1823700-1	MS-08	1-Sep-16	Total Dissolved Solids	1040	mg/L	ALS
L1823700-1	MS-08	1-Sep-16	Turbidity	15.7	NTU	ALS
L1823657-1	MS-08	2-Sep-16 (11:30)	pH	6.99	pH units	ALS
L1823657-1	MS-08	2-Sep-16 (11:30)	Total Dissolved Solids	1070	mg/L	ALS
L1823657-1	MS-08	2-Sep-16 (11:30)	Turbidity	19.6	NTU	ALS
L1823657-1	MS-08 (see Note)	2-Sep-16 (11:30)	Total Suspended Solids	16.8	mg/L	ALS
L1823657-2	MS-08	2-Sep-16 (17:00)	pH	7.02	pH units	ALS
L1823657-2	MS-08	2-Sep-16 (17:00)	Total Suspended Solids	14	mg/L	ALS
L1823657-2	MS-08	2-Sep-16 (17:00)	Total Dissolved Solids	1050	mg/L	ALS
L1823657-2	MS-08 (see Note)	2-Sep-16 (17:00)	Turbidity	16.7	NTU	ALS
L1824254-3	MS-C-A	5-Sep-16	Conductivity	264	uS/cm	ALS
L1824254-3	MS-C-A	5-Sep-16	pH	8.17	pH units	ALS
L1824254-3	MS-C-A	5-Sep-16	Total Suspended Solids	<2.0	mg/L	ALS
L1824254-3	MS-C-A	5-Sep-16	Ammonia, Total (as N)	0.031	mg/L	ALS
L1824254-3	MS-C-A	5-Sep-16	Nitrate (

TABLE 5.2

**BAFFINLAND IRON MINES CORPORATION
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Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
L1824254-2	MS-C-F	5-Sep-16	Total Suspended Solids	<2.0	mg/L	ALS
L1824254-2	MS-C-F	5-Sep-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1824254-2	MS-C-F	5-Sep-16	Nitrate (as N)	0.93	mg/L	ALS
L1824254-2	MS-C-F	5-Sep-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1824254-5	MS-C-G	5-Sep-16	Conductivity	225	uS/cm	ALS
L1824254-5	MS-C-G	5-Sep-16	pH	7.9	pH units	ALS
L1824254-5	MS-C-G	5-Sep-16	Total Suspended Solids	<2.0	mg/L	ALS
L1824254-5	MS-C-G	5-Sep-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1824254-5	MS-C-G	5-Sep-16	Nitrate (as N)	0.878	mg/L	ALS
L1824254-5	MS-C-G	5-Sep-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1824254-13	MS-C-G (Duplicate)	5-Sep-16	Conductivity	222	uS/cm	ALS
L1824254-13	MS-C-G (Duplicate)	5-Sep-16	pH	8.4	pH units	ALS
L1824254-13	MS-C-G (Duplicate)	5-Sep-16	Total Suspended Solids	<2.0	mg/L	ALS
L1824254-13	MS-C-G (Duplicate)	5-Sep-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1824254-13	MS-C-G (Duplicate)	5-Sep-16	Nitrate (as N)	0.869	mg/L	ALS
L1824254-13	MS-C-G (Duplicate)	5-Sep-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1824254-6	MS-C-H	5-Sep-16	Conductivity	254	uS/cm	ALS
L1824254-6	MS-C-H	5-Sep-16	pH	8.23	pH units	ALS
L1824254-6	MS-C-H	5-Sep-16	Total Suspended Solids	<2.0	mg/L	ALS
L1824254-6	MS-C-H	5-Sep-16	Ammonia, Total (as N)	<0.020	mg/L	ALS
L1824254-6	MS-C-H	5-Sep-16	Nitrate (as N)	<0.20	mg/L	ALS
L1824254-6	MS-C-H	5-Sep-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Conductivity	1630	uS/cm	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	pH	8.11	pH units	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Total Suspended Solids	2.8	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Total Dissolved Solids	899	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Alkalinity, Total (as CaCO3)	144	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Dissolved Organic Carbon	4	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Total Organic Carbon	4.5	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Mercury (Hg)-Total	<0.000010	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Aluminum (Al)-Total	0.068	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Antimony (Sb)-Total	0.00018	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Arsenic (As)-Total	0.00014	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Barium (Ba)-Total	0.0767	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Beryllium (Be)-Total	<0.00010	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Bismuth (Bi)-Total	<0.000050	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Boron (B)-Total	0.021	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Cadmium (Cd)-Total	0.000012	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Calcium (Ca)-Total	126	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Chromium (Cr)-Total	0.00059	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Cobalt (Co)-Total	0.00012	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Copper (Cu)-Total	0.0011	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Iron (Fe)-Total	0.096	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Lead (Pb)-Total	<0.00010	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Lithium (Li)-Total	0.0088	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Magnesium (Mg)-Total	93	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Manganese (Mn)-Total	0.00223	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Molybdenum (Mo)-Total	0.000171	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Nickel (Ni)-Total	0.00882	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Potassium (K)-Total	2.36	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Selenium (Se)-Total	<0.000050	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Silicon (Si)-Total	4.18	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Silver (Ag)-Total	<0.000050	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Sodium (Na)-Total	13.3	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Strontium (Sr)-Total	0.0668	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Thallium (Tl)-Total	0.000014	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Tin (Sn)-Total	<0.00010	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Titanium (Ti)-Total	0.00428	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Uranium (U)-Total	0.00128	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Vanadium (V)-Total	<0.00050	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Zinc (Zn)-Total	<0.030	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Oil and Grease, Total	<2.0	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Phenols (4AAP)	0.0017	mg/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	F1 (C6-C10)	<100	ug/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	F2 (C10-C16)	<100	ug/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	F3 (C16-C34)	<250	ug/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	F4 (C34-C50)	<250	ug/L	ALS
L1824254-7	MS-MRY-13B	5-Sep-16	Total Hydrocarbons (C6-C50)	<380	ug/L	ALS
MILNE PORT SITE						
L1839619-1	MP-01	4-Oct-16	pH	7.45	pH units	ALS
L1839619-1	MP-01	4-Oct-16	Total Suspended Solids	<2.0	mg/L	ALS
L1839619-1	MP-01	4-Oct-16	Ammonia, Total (as N)	0.069	mg/L	ALS
L1839619-1	MP-01	4-Oct-16	Total Phosphorus	11.4	mg/L	ALS
L1839619-1	MP-01	4-Oct-16	Fecal Coliforms	0	CFU/100mL	ALS
L1839619-1	MP-01	4-Oct-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1839619-1	MP-01	4-Oct-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1839623-1	MP-05 (See Note)	4-Oct-16	Hardness (as CaCO3)	308	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	pH	8.15	pH units	ALS
L1839623-1	MP-05	4-Oct-16	Total Suspended Solids	3.4	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Total Dissolved Solids	642	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Turbidity	8.03	NTU	ALS
L1839623-1	MP-05	4-Oct-16	Alkalinity, Total (as CaCO3)	207	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Ammonia, Total (as N)	0.074	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Chloride (Cl)	203	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Fluoride (F)	0.265	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Nitrate (as N)	6.48	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Total Kjeldahl Nitrogen	1	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Phosphorus, Total	0.011	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Sulfate (SO4)	56	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Dissolved Organic Carbon	5.6	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Total Organic Carbon	5.7	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Aluminum (Al)-Total	0.141	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Arsenic (As)-Total	0.00032	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Cadmium (Cd)-Total	<0.000010	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Calcium (Ca)-Total	64.1	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Copper (Cu)-Total	0.0021	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Iron (Fe)-Total	0.224	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Lead (Pb)-Total	0.0002	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Magnesium (Mg)-Total	38.1	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Manganese (Mn)-Total	0.0375	mg/L	ALS</

TABLE 5.2

**BAFFINLAND IRON MINES CORPORATION
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WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATIONS**

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
L1839627-1	MS-01	4-Oct-16	Ammonia, Total (as N)	0.634	mg/L	ALS
L1839627-1	MS-01	4-Oct-16	Total Phosphorus	1.2	mg/L	ALS
L1839627-1	MS-01	4-Oct-16	Fecal Coliforms	0	mg/L	ALS
L1839627-1	MS-01	4-Oct-16	Biochemical Oxygen Demand	2	mg/L	ALS
L1839627-1	MS-01	4-Oct-16	Oil & Grease - Total	<2.0	mg/L	ALS
MILNE PORT SITE						
L1852751-1	MP-01	1-Nov-16	pH	7.06	pH units	ALS
L1852751-1	MP-01	1-Nov-16	Total Suspended Solids	<2.0	mg/L	ALS
L1852751-1	MP-01	1-Nov-16	Ammonia, Total (as N)	0.07	mg/L	ALS
L1852751-1	MP-01	1-Nov-16	Total Phosphorus	12.6	mg/L	ALS
L1852751-1	MP-01	1-Nov-16	Fecal Coliforms	0	CFU/100mL	ALS
L1852751-1	MP-01	1-Nov-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1852751-1	MP-01	1-Nov-16	Oil & Grease - Total	<2.0	mg/L	ALS
MARY RIVER MINE SITE						
L1852753-1	MS-01	1-Nov-16	pH	7.35	pH units	ALS
L1852753-1	MS-01	1-Nov-16	Total Suspended Solids	4	mg/L	ALS
L1852753-1	MS-01	1-Nov-16	Ammonia, Total (as N)	0.178	mg/L	ALS
L1852753-1	MS-01	1-Nov-16	Total Phosphorus	1.52	mg/L	ALS
L1852753-1	MS-01	1-Nov-16	Fecal Coliforms	0	CFU/100mL	ALS
L1852753-1	MS-01	1-Nov-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1852753-1	MS-01	1-Nov-16	Oil & Grease - Total	<2.0	mg/L	ALS
MILNE PORT SITE						
L1867510-1	MP-01	6-Dec-17	pH	7.78	pH units	ALS
L1867510-1	MP-01	6-Dec-17	Total Suspended Solids	6	mg/L	ALS
L1867510-1	MP-01	6-Dec-17	Ammonia, Total (as N)	0.055	mg/L	ALS
L1867510-1	MP-01	6-Dec-17	Total Phosphorus	13.9	mg/L	ALS
L1867510-1	MP-01	6-Dec-17	Fecal Coliforms	0	CFU/100mL	ALS
L1867510-1	MP-01	6-Dec-17	Biochemical Oxygen Demand	2	mg/L	ALS
L1867510-1	MP-01	6-Dec-17	Oil & Grease - Total	<2.0	mg/L	ALS
MARY RIVER MINE SITE						
L1867513-1	MS-01	6-Dec-17	pH	7.71	pH units	ALS
L1867513-1	MS-01	6-Dec-17	Total Suspended Solids	2	mg/L	ALS
L1867513-1	MS-01	6-Dec-17	Ammonia, Total (as N)	0.101	mg/L	ALS
L1867513-1	MS-01	6-Dec-17	Total Phosphorus	1.21	mg/L	ALS
L1867513-1	MS-01	6-Dec-17	Fecal Coliforms	0	CFU/100mL	ALS
L1867513-1	MS-01	6-Dec-17	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1867513-1	MS-01	6-Dec-17	Oil & Grease - Total	<2.0	mg/L	ALS

Date of Exceedence	Notes
February 23, 2016	Faecal Coliforms for a sample of MS-01 was 1050 CFU/100 mL. The off spec condition was due to a very temporary upset condition and/or possibly a problem during sampling resulting in a sample bias. The result from a subsequent sample taken on March 8 was 1 CFU/100 mL.
May 10, 2016	TSS for samples of MS-C-D and MS-C-E were 39.4 mg/L and 66.0 mg/L, respectively. Subsequent samples of MS-C-D were 12.8 mg/L - May 16, 7.0 mg/L - May 23, and 9.6 mg/L May 31. Subsequent samples of MS-C-E were 16.0 mg/L - May 16, 23.8 mg/L - May 23. Refer to Spill Report - 16-158 and Follow Up Report submitted to INAC June 24.
May 23, 2016	TSS for samples of MQ-C-B were 42.9 mg/L and 47.0 mg/L on May 23 and May 28, respectively. The result from a sample taken May 31 was 22.8 mg/L. Silt fences and silt curtain installed for control, monitoring is ongoing.
May 24, 2016	TSS for pre-discharge untreated sample of MS-06 was 35.1 mg/L. The result of a subsequent sample taken June 18 was 12.0 mg/L. There has been no discharge from this facility.
June 7, 2016	Grab samples MP-06 dated June 7, 2016 and MP-05 dated June 13, 2016 were collected during the construction of diversion ditches, as such Table 1: Effluent Quality Limits for Surface Runoff during Construction Phase is used to evaluate water quality.
June 7, 2016	Grab sample MP-C-B and MP-C-B01 dated June 7, 2016 are evaluated against the Maximum Concentration of Any Grab Sample Limits provided in Table 11: Effluent Quality Discharge Limits for Contact Water during Operations Phase and the Early Revenue Phase of the Project.
June 7, 2016	Grab sample MQ-C-B dated June 7, 2016 was collected during freshette runoff as well as the construction of drainage features (silt fences, jute bedding, and flocculent) that address sedimentation and water quality impacts in this area. Follow up samples collected on June 13, 20 and 27, 2016 indicated improvements with respect to total suspended solids concentrations.
June 13, 2016	Grab sample MP-Q1-02 dated June 13, 2016 was collected during freshette runoff. Drainage features (silt fences and flocculent) were installed address sedimentation and water quality impacts in this area. Follow up samples collected on June 16, 20 and 28, 2016 indicated improvements with respect to total suspended solids concentrations.
July 12, 2016	Grab sample MS-C-F dated July 12, 2016 was collected during a rain event. No visible mine related sediment loading was observed during this sampling event. Results from follow up sample collected on July 18, 2015 showed parameter concentrations below criteria listed in Table 11: Effluent Quality Discharge Limits for Contact Water during Operations Phase and the Early Revenue Phase of the Project.
July 25, 2016	Grab sample MS-C-F dated July 25, 2016 was collected subsequent to rain event. No visible mine related sediment loading was observed during this sampling event. Results from follow up sample collected on July 29, 2015 showed parameter concentrations below criteria listed in Table 11: Effluent Quality Discharge Limits for Contact Water during Operations Phase and the Early Revenue Phase of the Project.
July 12, 2016	Grab sample MS-C-G dated July 12, 2016 was collected during a rain event. No visible mine related sediment loading was observed during this sampling event. Results from follow up sample collected on July 18, 2015 showed parameter concentrations below criteria listed in Table 11: Effluent Quality Discharge Limits for Contact Water during Operations Phase and the Early Revenue Phase of the Project.
July 18, 2016	Grab sample MS-C-E dated July 18, 2016 was collected during a rain event. Sediment control features (jute mat, flocculent and silt fence) were installed in drainage basin above sample site. Results from follow up sample collected on July 25, 2015 showed parameter concentrations below criteria listed in Table 11: Effluent Quality Discharge Limits for Contact Water during Operations Phase and the Early Revenue Phase of the Project.
August 17, 2016	Final effluent samples MP-04 dated August 17 and 22, 2016, were collected at the discharge point (greater than 200 m from any water course) slightly exceeded Water Licence water quality criterion of 15 mg/L (Table 9: Effluent Quality Discharge Limits for the Landfarm Facilities). However, the result of a third sample, collected on August 31, showed parameter concentrations far below the referenced criteria. The monthly average of three (3) samples collected during August was 4.8 mg/L.
August 1, 2016	The exceedance for grab sample MS-08 dated August 1, 2016 was likely due to sampling error. Results from follow up sample collected in August 2016 showed parameter concentrations below criteria listed in Table 10: Effluent Quality Discharge Limits for Open Pit, Stockpiles, and Sedimentation Ponds. The monthly average of the six (6) samples collected at MS-08 during August was 7.5 mg/L.
August 1, 2016	Grab sample MQ-C-D dated August 1, 2016 was collected after a rain event. Results from follow up sample collected on August 9, 2016 showed parameter concentrations below criteria listed in Table 11: Effluent Quality Discharge Limits for Contact Water during Operations Phase and the Early Revenue Phase of the Project.. The monthly average of five (5) samples collected at MQ-C-D during August was 8.1 mg/L.
September 1, 2016	Due to logistical and holding time requirements, pre discharge sampling was completed on 30-August-16. Refer to Table 2 - Water Licence 2AM-MRY1325 Monthly SNP Report – August 2016.
September 2, 2016	Incliment weather restricted access to MS-08 on 2-Sep-16 (11:30). Sample was collected directly from the Waste Rock Pond. Elevated TSS levels were caused by snow and ice that had fallen into the pond at the sampling location which may have disturbed bottom sediments. A follow-up sample collected at 17:00 confirmed a TSS reading less than the Water Licence Criteria of 15 mg/L for grab samples. The monthly average of the 3 samples collected at MS-08 during September was 14.5 mg/L
September 12, 2016	Due to logistical and holding time requirements the monthly acute lethality sample collected at MS-06 on September 12, 2016 could not be analyzed upon receipt at the laboratory.
October 4, 2016	Internal evaluation sample of MP-05. No treatment or discharge occurred.

TABLE 5.3

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TOXICITY MONITORING RESULTS FOR WATER LICENCE MONITORING LOCATIONS**

Sample Number	Sample ID	Date Sampled	Toxicity Test	Result	Lab
47807	MQ-C-B	23-May-16	Daphnia magna	non-lethal	Aquatox
47807	MQ-C-B	23-May-16	Rainbow trout	non-lethal	Aquatox
47808	MS-06 (Pre-Discharge)	24-May-16	Daphnia magna	non-lethal	Aquatox
47808	MS-06 (Pre-Discharge)	24-May-16	Rainbow trout	non-lethal	Aquatox
47809	MP-C-B01	24-May-16	Daphnia magna	non-lethal	Aquatox
47809	MP-C-B01	24-May-16	Rainbow trout	non-lethal	Aquatox
47965	MQ-C-B	7-Jun-16	Daphnia magna	non-lethal	Aquatox
47965	MQ-C-B	7-Jun-16	Rainbow trout	non-lethal	Aquatox
47966	MS-MRY-04b	7-Jun-16	Daphnia magna	non-lethal	Aquatox
47966	MS-MRY-04b	7-Jun-16	Rainbow trout	non-lethal	Aquatox
48039	MP-Q1-01	14-Jun-16	Daphnia magna	non-lethal	Aquatox
48039	MP-Q1-01	14-Jun-16	Rainbow trout	non-lethal	Aquatox
48040	MP-05	16-Jun-16	Daphnia magna	non-lethal	Aquatox
48040	MP-05	16-Jun-16	Rainbow trout	non-lethal	Aquatox
48240	MQ-C-B	4-Jul-16	Daphnia magna	non-lethal	Aquatox
48240	MQ-C-B	4-Jul-16	Rainbow trout	non-lethal	Aquatox
48238	MP-Q1-01	5-Jul-16	Daphnia magna	non-lethal	Aquatox
48238	MP-Q1-01	5-Jul-16	Rainbow trout	non-lethal	Aquatox
48376	MP-06	18-Jul-16	Daphnia magna	non-lethal	Aquatox
48376	MP-06	18-Jul-16	Rainbow trout	non-lethal	Aquatox
48374	MP-Q1-02	18-Jul-16	Daphnia magna	non-lethal	Aquatox
48374	MP-Q1-02	18-Jul-16	Rainbow trout	non-lethal	Aquatox
48375	MS-08	19-Jul-16	Daphnia magna	non-lethal	Aquatox
48375	MS-08	19-Jul-16	Rainbow trout	non-lethal	Aquatox
48524	MS-01	5-Aug-16	Daphnia magna	non-lethal	Aquatox
48524	MS-01	5-Aug-16	Rainbow trout	non-lethal	Aquatox
48523	MP-01	5-Aug-16	Daphnia magna	non-lethal	Aquatox
48523	MP-01	5-Aug-16	Rainbow trout	non-lethal	Aquatox
48525	MQ-C-B	5-Aug-16	Daphnia magna	non-lethal	Aquatox
48525	MQ-C-B	5-Aug-16	Rainbow trout	non-lethal	Aquatox
48686	MS-08	16-Aug-16	Daphnia magna	non-lethal	Aquatox
48686	MS-08	16-Aug-16	Rainbow trout	non-lethal	Aquatox
48754	MQ-C-B	23-Aug-16	Daphnia magna	non-lethal	Aquatox
48754	MQ-C-B	23-Aug-16	Rainbow trout	non-lethal	Aquatox
48755	MP-Q1-01	23-Aug-16	Daphnia magna	non-lethal	Aquatox
48755	MP-Q1-01	23-Aug-16	Rainbow trout	non-lethal	Aquatox
48756	MP-06	23-Aug-16	Daphnia magna	non-lethal	Aquatox
48756	MP-06	23-Aug-16	Rainbow trout	non-lethal	Aquatox
48803	MS-08	30-Aug-16	Daphnia magna	non-lethal	Aquatox
48803	MS-08	30-Aug-16	Rainbow trout	non-lethal	Aquatox
48878	MP-Q1-02	6-Sep-16	Daphnia magna	non-lethal	Aquatox
48878	MP-Q1-02	6-Sep-16	Rainbow trout	non-lethal	Aquatox
48877	MQ-C-B	6-Sep-16	Daphnia magna	non-lethal	Aquatox
48877	MQ-C-B	6-Sep-16	Rainbow trout	non-lethal	Aquatox

TABLE 5.4

**BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT**

**2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
FIELD QA/QC WATER QUALITY DATA ANALYSES**

DUPLICATES

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Unit	Lab	%Difference Comparison				
L1753088-1	MS-01	5-Apr-16	pH	7.77	pH units	ALS					
L1753088-1	MS-01	5-Apr-16	Total Suspended Solids	<2.0	mg/L	ALS					
L1753088-1	MS-01	5-Apr-16	N-NH3 (Ammonia)	0.129	mg/L	ALS					
L1753088-1	MS-01	5-Apr-16	Total Kjeldahl Nitrogen	1.24	mg/L	ALS					
L1753088-1	MS-01	5-Apr-16	Total Phosphorus	0.505	mg/L	ALS					
L1753088-1	MS-01	5-Apr-16	Faecal Coliforms	2.0	MPN/100 mL	ALS					
L1753088-1	MS-01	5-Apr-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS					
L1753088-1	MS-01	5-Apr-16	Oil & Grease - Total	2.5	mg/L	ALS					
L1753088-3	MS-01 (Duplicate)	5-Apr-16	pH	7.79	pH units	ALS					
L1753088-3	MS-01 (Duplicate)	5-Apr-16	Total Suspended Solids	2.8	mg/L	ALS					
L1753088-3	MS-01 (Duplicate)	5-Apr-16	N-NH3 (Ammonia)	0.126	mg/L	ALS					
L1753088-3	MS-01 (Duplicate)	5-Apr-16	Total Kjeldahl Nitrogen	1.4	mg/L	ALS					
L1753088-3	MS-01 (Duplicate)	5-Apr-16	Total Phosphorus	0.518	mg/L	ALS					
L1753088-3	MS-01 (Duplicate)	5-Apr-16	Faecal Coliforms	3	MPN/100 mL	ALS					
L1753088-3	MS-01 (Duplicate)	5-Apr-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS					
L1753088-3	MS-01 (Duplicate)	5-Apr-16	Oil & Grease - Total	<2.0	mg/L	ALS					
L1753081-1	MP-01	5-Apr-16	pH	7.58	pH units	ALS					
L1753081-1	MP-01	5-Apr-16	Total Suspended Solids	4.0	mg/L	ALS					
L1753081-1	MP-01	5-Apr-16	N-NH3 (Ammonia)	0.022	mg/L	ALS					
L1753081-1	MP-01	5-Apr-16	Total Kjeldahl Nitrogen	6.9	mg/L	ALS					
L1753081-1	MP-01	5-Apr-16	Total Phosphorus	9.89	mg/L	ALS					
L1753081-1	MP-01	5-Apr-16	Faecal Coliforms	<1	MPN/100 mL	ALS					
L1753081-1	MP-01	5-Apr-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS					
L1753081-1	MP-01	5-Apr-16	Oil & Grease - Total	<2.0	mg/L	ALS					
L1753081-3	MP-01 (Duplicate)	5-Apr-16	pH	7.53	pH units	ALS					
L1753081-3	MP-01 (Duplicate)	5-Apr-16	Total Suspended Solids	5.2	mg/L	ALS					
L1753081-3	MP-01 (Duplicate)	5-Apr-16	N-NH3 (Ammonia)	0.034	mg/L	ALS					
L1753081-3	MP-01 (Duplicate)	5-Apr-16	Total Kjeldahl Nitrogen	8.2	mg/L	ALS					
L1753081-3	MP-01 (Duplicate)	5-Apr-16	Total Phosphorus	10.0	mg/L	ALS					
L1753081-3	MP-01 (Duplicate)	5-Apr-16	Faecal Coliforms	<1	MPN/100 mL	ALS					
L1753081-3	MP-01 (Duplicate)	5-Apr-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS					
L1753081-3	MP-01 (Duplicate)	5-Apr-16	Oil & Grease - Total	<2.0	mg/L	ALS					
L1772655-8	MQ-C-D	23-May-16	Conductivity	96.3	uS/cm	ALS					
L1772655-8	MQ-C-D	23-May-16	pH	7.70	pH units	ALS					
L1772655-8	MQ-C-D	23-May-16	Total Suspended Solids	9.2	mg/L	ALS					
L1772655-8	MQ-C-D	23-May-16	N-NH3 (Ammonia)	0.158	mg/L	ALS					
L1772655-8	MQ-C-D	23-May-16	N-NO3 (Nitrate)	0.341	mg/L	ALS					
L1772655-8	MQ-C-D	23-May-16	Oil & Grease - Total	<2.0	mg/L	ALS					
L1772655-9	MQ-C-D (Duplicate)	23-May-16	Conductivity	95.5	uS/cm	ALS					
L1772655-9	MQ-C-D (Duplicate)	23-May-16	pH	7.70	pH units	ALS					
L1772655-9	MQ-C-D (Duplicate)	23-May-16	Total Suspended Solids	10.0	mg/L	ALS					
L1772655-9	MQ-C-D (Duplicate)	23-May-16	N-NH3 (Ammonia)	0.147	mg/L	ALS					
L1772655-9	MQ-C-D (Duplicate)	23-May-16	N-NO3 (Nitrate)	0.343	mg/L	ALS					
L1772655-9	MQ-C-D (Duplicate)	23-May-16	Oil & Grease - Total	<2.0	mg/L	ALS					
L1776291-3	MQ-C-B	30-May-16	pH	7.66	pH units	ALS					
L1776291-3	MQ-C-B	30-May-16	Total Suspended Solids	22.8	mg/L	ALS					
L1776291-3	MQ-C-B	30-May-16	Turbidity	47.1	NTU	ALS					
L1776291-4	MQ-C-B (Duplicate)	30-May-16	pH	7.68	pH units	ALS					
L1776291-4	MQ-C-B (Duplicate)	30-May-16	Total Suspended Solids	24.0	mg/L	ALS					
L1776291-4	MQ-C-B (Duplicate)	30-May-16	Turbidity	48.5	NTU	ALS					

MDL	Units	05-Apr-16	05-Apr-16	%Difference
0.1	pH units	7.77	7.79	N/A
2.0	mg/L	<2.0	2.8	-
0.02	mg/L	0.129	0.126	2.3
0.15	mg/L	1.24	1.4	12.9
0.003	mg/L	0.505	0.518	2.6
1	MPN/100 mL	2.0	3	-
2	mg/L	<2.0	<2.0	-
2	mg/L	2.5	<2.0	-

MDL	Units	05-Apr-16	05-Apr-16	%Difference
0.1	pH units	7.58	7.53	N/A
2.0	mg/L	4.0	5.2	-
0.02	mg/L	0.022	0.034	-
1.5	mg/L	6.9	8.2	-
0.03	mg/L	9.89	10.0	1.1
1	MPN/100 mL	<1	<1	-
2.0	mg/L	<2.0	<2.0	-
2.0	mg/L	<2.0	<2.0	-

MDL	Units	23-May-16	23-May-16	%Difference

<tbl_r cells="5" ix="1" maxcspan="1" maxrspan="1" usedcols="

TABLE 5.4

**BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT**

**2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
FIELD QA/QC WATER QUALITY DATA ANALYSES**

									L1776290-3	L1776290-4		
							MDL	Units	MP-C-B01	MP-C-B01 (Duplicate)		
									31-May-16	31-May-16	%Difference	
L1776290-3	MP-C-B01	31-May-16	pH	7.92	pH units	ALS						
L1776290-3	MP-C-B01	31-May-16	Total Suspended Solids	12.8	mg/L	ALS						
L1776290-4	MP-C-B01 (Duplicate)	31-May-16	pH	7.94	pH units	ALS						
L1776290-4	MP-C-B01 (Duplicate)	31-May-16	Total Suspended Solids	11.2	mg/L	ALS						
							pH	0.10	pH units	7.92	7.94	N/A
							Total Suspended Solids	2.0	mg/L	12.8	11.2	12.5

TABLE 5.4

**BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT**

**2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
FIELD QA/QC WATER QUALITY DATA ANALYSES**

L1792842-6	MS-C-E (Duplicate)	4-Jul-16	N-NO3 (Nitrate)	2.36	mg/L	ALS
L1792842-6	MS-C-E (Duplicate)	4-Jul-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1793579-5	MP-C-B01	5-Jul-16	Conductivity	513	uS/cm	ALS
L1793579-5	MP-C-B01	5-Jul-16	pH	8.28	pH units	ALS
L1793579-5	MP-C-B01	5-Jul-16	Total Suspended Solids	9.3	mg/L	ALS
L1793579-5	MP-C-B01	5-Jul-16	N-NH3 (Ammonia)	0.051	mg/L	ALS
L1793579-5	MP-C-B01	5-Jul-16	N-NO3 (Nitrate)	1.84	mg/L	ALS
L1793579-5	MP-C-B01	5-Jul-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1793579-6	MP-C-B01 (Duplicate)	5-Jul-16	Conductivity	513	uS/cm	ALS
L1793579-6	MP-C-B01 (Duplicate)	5-Jul-16	pH	8.259	pH units	ALS
L1793579-6	MP-C-B01 (Duplicate)	5-Jul-16	Total Suspended Solids	7.7	mg/L	ALS
L1793579-6	MP-C-B01 (Duplicate)	5-Jul-16	N-NH3 (Ammonia)	0.056	mg/L	ALS
L1793579-6	MP-C-B01 (Duplicate)	5-Jul-16	N-NO3 (Nitrate)	1.85	mg/L	ALS
L1793579-6	MP-C-B01 (Duplicate)	5-Jul-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1800887-11	MS-C-G	18-Jul-16	Conductivity	209	uS/cm	ALS
L1800887-11	MS-C-G	18-Jul-16	pH	8.19	pH units	ALS
L1800887-11	MS-C-G	18-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1800887-11	MS-C-G	18-Jul-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1800887-11	MS-C-G	18-Jul-16	N-NO3 (Nitrate)	0.239	mg/L	ALS
L1800887-11	MS-C-G	18-Jul-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1800887-12	MS-C-G (Duplicate)	18-Jul-16	Conductivity	209	uS/cm	ALS
L1800887-12	MS-C-G (Duplicate)	18-Jul-16	pH	8.17	pH units	ALS
L1800887-12	MS-C-G (Duplicate)	18-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1800887-12	MS-C-G (Duplicate)	18-Jul-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1800887-12	MS-C-G (Duplicate)	18-Jul-16	N-NO3 (Nitrate)	0.209	mg/L	ALS
L1800887-12	MS-C-G (Duplicate)	18-Jul-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1803758-9	MQ-C-A	25-Jul-16	pH	8.12	pH units	ALS
L1803758-9	MQ-C-A	25-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1803758-9	MQ-C-A	25-Jul-16	Total Dissolved Solids	155	mg/L	ALS
L1803758-9	MQ-C-A	25-Jul-16	Turbidity	0.57	NTU	ALS
L1803758-10	MQ-C-A (Duplicate)	25-Jul-16	pH	8.09	pH units	ALS
L1803758-10	MQ-C-A (Duplicate)	25-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1803758-10	MQ-C-A (Duplicate)	25-Jul-16	Total Dissolved Solids	145	mg/L	ALS
L1803758-10	MQ-C-A (Duplicate)	25-Jul-16	Turbidity	0.76	NTU	ALS
L1804264-1	MP-Q1-02	26-Jul-16	pH	7.97	pH units	ALS
L1804264-1	MP-Q1-02	26-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1804264-2	MP-Q1-02 (Duplicate)	26-Jul-16	pH	7.99	pH units	ALS
L1804264-2	MP-Q1-02 (Duplicate)	26-Jul-16	Total Suspended Solids	<2.0	mg/L	ALS
L1807077-4	MS-C-D	1-Aug-16	Conductivity	778	uS/cm	ALS
L1807077-4	MS-C-D	1-Aug-16	pH	8.3	pH units	ALS
L1807077-4	MS-C-D	1-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1807077-4	MS-C-D	1-Aug-16	N-NH3 (Ammonia)	0.031	mg/L	ALS
L1807077-4	MS-C-D	1-Aug-16	N-NO3 (Nitrate)	6.23	mg/L	ALS
L1807077-4	MS-C-D	1-Aug-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1807077-3	MS-C-D (Duplicate)	1-Aug-16	Conductivity	777	uS/cm	ALS
L1807077-3	MS-C-D (Duplicate)	1-Aug-16	pH	8.29	pH units	ALS
L1807077-3	MS-C-D (Duplicate)	1-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1807077-3	MS-C-D (Duplicate)	1-Aug-16	N-NH3 (Ammonia)	0.029	mg/L	ALS
L1807077-3	MS-C-D (Duplicate)	1-Aug-16	N-NO3 (Nitrate)	6.21	mg/L	ALS
L1807077-3	MS-C-D (Duplicate)	1-Aug-16	Oil & Grease - Total	<2.0	mg/L	ALS

L1793579-5	L1793579-6
MP-C-B01	MP-C-B01 (Duplicate)
MDL	Units
Conductivity	3.0
pH	0.10
Total Suspended Solids	2.0
N-NH3 (Ammonia)	0.020
N-NO3 (Nitrate)	0.020
Oil & Grease - Total	2.0

L1800887-11	L1800887-12
MS-C-G	MS-C-G (Duplicate)
MDL	Units
Conductivity	3.0
pH	0.10
Total Suspended Solids	2.0
N-NH3 (Ammonia)	0.020
N-NO3 (Nitrate)	0.020
Oil & Grease - Total	2.0

L1803758-9	L1803758-10
MQ-C-A	MQ-C-A (Duplicate)
MDL	Units
pH	0.10
Total Suspended Solids	2.0
Total Dissolved Solids	20
Turbidity	0.10

L1804264-1	L1804264-2
MP-Q1-02	MP-Q1-02 (Duplicate)
MDL	Units
pH	0.10
Total Suspended Solids	2.0

L1807077-4	L1807077-3
MS-C-D	MS-C-D (Duplicate)
MDL	Units
Conductivity	3.0
pH	0.10
Total Suspended Solids	2.0
N-NH3 (Ammonia)	0.020
N-NO3 (Nitrate)	0.020
Oil & Grease - Total	2.0

TABLE 5.4

**BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT**

**2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
FIELD QA/QC WATER QUALITY DATA ANALYSES**

L1810168-1	MP-Q1-01	2-Aug-16	Conductivity	342	uS/cm	ALS
L1810168-1	MP-Q1-01	2-Aug-16	pH	8.25	pH units	ALS
L1810168-1	MP-Q1-01	2-Aug-16	Total Suspended Solids	4.8	mg/L	ALS
L1810168-1	MP-Q1-01	2-Aug-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1810168-1	MP-Q1-01	2-Aug-16	N-NO3 (Nitrate)	1.23	mg/L	ALS
L1810168-1	MP-Q1-01	2-Aug-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1810168-2	MP-Q1-01 (Duplicate)	2-Aug-16	Conductivity	342	uS/cm	ALS
L1810168-2	MP-Q1-01 (Duplicate)	2-Aug-16	pH	8.29	pH units	ALS
L1810168-2	MP-Q1-01 (Duplicate)	2-Aug-16	Total Suspended Solids	3.4	mg/L	ALS
L1810168-2	MP-Q1-01 (Duplicate)	2-Aug-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1810168-2	MP-Q1-01 (Duplicate)	2-Aug-16	N-NO3 (Nitrate)	1.23	mg/L	ALS
L1810168-2	MP-Q1-01 (Duplicate)	2-Aug-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1818479-5	MP-Q1-02	23-Aug-16	pH	7.92	pH units	ALS
L1818479-5	MP-Q1-02	23-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1818479-5	MP-Q1-02	23-Aug-16	Total Dissolved Solids	415	mg/L	ALS
L1818479-5	MP-Q1-02	23-Aug-16	Turbidity	0.27	NTU	ALS
L1818479-6	MP-Q1-02 (Duplicate)	23-Aug-16	pH	7.9	pH units	ALS
L1818479-6	MP-Q1-02 (Duplicate)	23-Aug-16	Total Suspended Solids	2	mg/L	ALS
L1818479-6	MP-Q1-02 (Duplicate)	23-Aug-16	Total Dissolved Solids	410	mg/L	ALS
L1818479-6	MP-Q1-02 (Duplicate)	23-Aug-16	Turbidity	0.28	NTU	ALS
L1823639-2	MP-Q1-02	30-Aug-16	Conductivity	838	uS/cm	ALS
L1823639-2	MP-Q1-02	30-Aug-16	pH	8.11	pH units	ALS
L1823639-2	MP-Q1-02	30-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1823639-2	MP-Q1-02	30-Aug-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1823639-2	MP-Q1-02	30-Aug-16	N-NO3 (Nitrate)	12.7	mg/L	ALS
L1823639-2	MP-Q1-02	30-Aug-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1823639-3	MP-Q1-02 (Duplicate)	30-Aug-16	Conductivity	839	uS/cm	ALS
L1823639-3	MP-Q1-02 (Duplicate)	30-Aug-16	pH	8.12	pH units	ALS
L1823639-3	MP-Q1-02 (Duplicate)	30-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1823639-3	MP-Q1-02 (Duplicate)	30-Aug-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1823639-3	MP-Q1-02 (Duplicate)	30-Aug-16	N-NO3 (Nitrate)	12.7	mg/L	ALS
L1823639-3	MP-Q1-02 (Duplicate)	30-Aug-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1824254-5	MS-C-G	5-Sep-16	Conductivity	225	uS/cm	ALS
L1824254-5	MS-C-G	5-Sep-16	pH	7.9	pH units	ALS
L1824254-5	MS-C-G	5-Sep-16	Total Suspended Solids	<2.0	mg/L	ALS
L1824254-5	MS-C-G	5-Sep-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1824254-5	MS-C-G	5-Sep-16	N-NO3 (Nitrate)	0.878	mg/L	ALS
L1824254-5	MS-C-G	5-Sep-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1824254-13	MS-C-G (Duplicate)	5-Sep-16	Conductivity	222	uS/cm	ALS
L1824254-13	MS-C-G (Duplicate)	5-Sep-16	pH	8.4	pH units	ALS
L1824254-13	MS-C-G (Duplicate)	5-Sep-16	Total Suspended Solids	<2.0	mg/L	ALS
L1824254-13	MS-C-G (Duplicate)	5-Sep-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1824254-13	MS-C-G (Duplicate)	5-Sep-16	N-NO3 (Nitrate)	0.869	mg/L	ALS
L1824254-13	MS-C-G (Duplicate)	5-Sep-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1824249-6	MP-C-H	6-Sep-16	Conductivity	379	uS/cm	ALS
L1824249-6	MP-C-H	6-Sep-16	pH	8.36	pH units	ALS
L1824249-6	MP-C-H	6-Sep-16	Total Suspended Solids	<2.0	mg/L	ALS
L1824249-6	MP-C-H	6-Sep-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1824249-6	MP-C-H	6-Sep-16	N-NO3 (Nitrate)	0.15	mg/L	ALS
L1824249-6	MP-C-H	6-Sep-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1824249-3	MP-C-H (Duplicate)	6-Sep-16	Conductivity	376	uS/cm	ALS
L1824249-3	MP-C-H (Duplicate)	6-Sep-16	pH	8.33	pH units	ALS
L1824249-3	MP-C-H (Duplicate)	6-Sep-16	Total Suspended Solids	<2.0	mg/L	ALS
L1824249-3	MP-C-H (Duplicate)	6-Sep-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1824249-3	MP-C-H (Duplicate)	6-Sep-16	N-NO3 (Nitrate)	0.153	mg/L	ALS
L1824249-3	MP-C-H (Duplicate)	6-Sep-16	Oil & Grease - Total	<2.0	mg/L	ALS

MDL	Units	L1810168-1	L1810168-2	%Difference
Conductivity	3.0	uS/cm	342	0.0
pH	0.10	pH units	8.25	N/A
Total Suspended Solids	2.0	mg/L	4.8	3.4
N-NH3 (Ammonia)	0.020	mg/L	<0.020	<0.020
N-NO3 (Nitrate)	0.020	mg/L	1.23	1.23
Oil & Grease - Total	2.0	mg/L	<2.0	<2.0
MDL	Units	L1818479-5	L1818479-6	%Difference
pH	0.10	pH units	7.92	N/A
Total Suspended Solids	2.0	mg/L	<2.0	2
Total Dissolved Solids	20	mg/L	415	410
Turbidity	0.10	NTU	0.27	0.28
MDL	Units	L1823639-2	L1823639-3	%Difference
Conductivity	3.0	uS/cm	838	0.1
pH	0.10	pH units	8.11	N/A
Total Suspended Solids	2.0	mg/L	<2.0	<2.0
N-NH3 (Ammonia)	0.020	mg/L	<0.020	<0.020
N-NO3 (Nitrate)	0.020	mg/L	12.7	12.7
Oil & Grease - Total	2.0	mg/L	<2.0	<2.0
MDL	Units	L1824254-5	L1824254-13	%Difference
Conductivity	3.0	uS/cm	225	1.3
pH	0.10	pH units	7.9	N/A
Total Suspended Solids	2.0	mg/L	<2.0	<2.0
N-NH3 (Ammonia)	0.020	mg/L	<0.020	<0.020
N-NO3 (Nitrate)	0.020	mg/L	0.878	0.869
Oil & Grease - Total	2.0	mg/L	<2.0	<2.0
MDL	Units	L1824249-6	L1824249-3	%Difference
Conductivity	3.0	uS/cm	379	0.8
pH	0.10	pH units	8.36	N/A
Total Suspended Solids	2.0	mg/L	<2.0	<2.0
N-NH3 (Ammonia)	0.020	mg/L	<0.020	<0.020
N-NO3 (Nitrate)	0.020	mg/L	0.15	0.153
Oil & Grease - Total	2.0	mg/L	<2.0	<2.0

Notes: Result data sets with one or two values less than 5 times the MDL of their respective parameter are presented with a % Difference of "-". Comparisons for pH were not performed.

TABLE 5.4

**BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT**

**2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
FIELD QA/QC WATER QUALITY DATA ANALYSES**

FIELD BLANKS AND TRAVEL BLANKS

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Unit	Lab
L1787792-8	MP-C-B01 (Travel Blank)	20-Jun-16	Conductivity	<3.0	uS/cm	ALS
L1787792-8	MP-C-B01 (Travel Blank)	20-Jun-16	pH	6.83	pH units	ALS
L1787792-8	MP-C-B01 (Travel Blank)	20-Jun-16	Total Suspended Solids	<2.0	mg/L	ALS
L1787792-8	MP-C-B01 (Travel Blank)	20-Jun-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1787792-8	MP-C-B01 (Travel Blank)	20-Jun-16	N-NO3 (Nitrate)	<0.020	mg/L	ALS
L1787792-8	MP-C-B01 (Travel Blank)	20-Jun-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1790062-4	MS-C-C (Travel Blank)	27-Jun-16	pH	5.84	pH units	ALS
L1790062-4	MS-C-C (Travel Blank)	27-Jun-16	Total Suspended Solids	<2.0	mg/L	ALS
L1790062-4	MS-C-C (Travel Blank)	27-Jun-16	Turbidity	0.11	NTU	ALS
L1790508-9	MP-C-H (Field Blank)	28-Jun-16	pH	6.2	pH units	ALS
L1790508-9	MP-C-H (Field Blank)	28-Jun-16	Total Suspended Solids	<2.0	mg/L	ALS
L1810168-4	MP-Q1-02 (Field Blank)	2-Aug-16	Conductivity	<3.0	uS/cm	ALS
L1810168-4	MP-Q1-02 (Field Blank)	2-Aug-16	pH	6.76	pH units	ALS
L1810168-4	MP-Q1-02 (Field Blank)	2-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1810168-4	MP-Q1-02 (Field Blank)	2-Aug-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1810168-4	MP-Q1-02 (Field Blank)	2-Aug-16	N-NO3 (Nitrate)	<0.020	mg/L	ALS
L1810168-4	MP-Q1-02 (Field Blank)	2-Aug-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1818479-4	MP-Q1-01 (Travel Blank)	23-Aug-16	pH	6.05	pH units	ALS
L1818479-4	MP-Q1-01 (Travel Blank)	23-Aug-16	Total Suspended Solids	<2.0	mg/L	ALS
L1818479-4	MP-Q1-01 (Travel Blank)	23-Aug-16	Total Dissolved Solids	<20	mg/L	ALS
L1818479-4	MP-Q1-01 (Travel Blank)	23-Aug-16	Turbidity	<0.10	NTU	ALS
L1852751-3	MP-01 (Field Blank)	1-Nov-16	pH	6.25	pH units	ALS
L1852751-3	MP-01 (Field Blank)	1-Nov-16	Total Suspended Solids	<2.0	mg/L	ALS
L1852751-3	MP-01 (Field Blank)	1-Nov-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1852751-3	MP-01 (Field Blank)	1-Nov-16	Total Kjeldahl Nitrogen	<0.15	mg/L	ALS
L1852751-3	MP-01 (Field Blank)	1-Nov-16	Total Phosphorus	0.0048	mg/L	ALS
L1852751-3	MP-01 (Field Blank)	1-Nov-16	Faecal Coliforms	0	ct/100mL	ALS
L1852751-3	MP-01 (Field Blank)	1-Nov-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1852751-3	MP-01 (Field Blank)	1-Nov-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1852751-4	MP-01 (Travel Blank)	1-Nov-16	pH	6.03	pH units	ALS
L1852751-4	MP-01 (Travel Blank)	1-Nov-16	Total Suspended Solids	<2.0	mg/L	ALS
L1852751-4	MP-01 (Travel Blank)	1-Nov-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1852751-4	MP-01 (Travel Blank)	1-Nov-16	Total Kjeldahl Nitrogen	<0.15	mg/L	ALS
L1852751-4	MP-01 (Travel Blank)	1-Nov-16	Total Phosphorus	<0.0030	mg/L	ALS
L1852751-4	MP-01 (Travel Blank)	1-Nov-16	Faecal Coliforms	0	ct/100mL	ALS
L1852751-4	MP-01 (Travel Blank)	1-Nov-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1852751-4	MP-01 (Travel Blank)	1-Nov-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1852753-2	MS-01 (Field Blank)	1-Nov-16	pH	6.34	pH units	ALS
L1852753-2	MS-01 (Field Blank)	1-Nov-16	Total Suspended Solids	<2.0	mg/L	ALS
L1852753-2	MS-01 (Field Blank)	1-Nov-16	N-NH3 (Ammonia)	0.026	mg/L	ALS
L1852753-2	MS-01 (Field Blank)	1-Nov-16	Total Kjeldahl Nitrogen	<0.15	mg/L	ALS
L1852753-2	MS-01 (Field Blank)	1-Nov-16	Total Phosphorus	0.0074	mg/L	ALS
L1852753-2	MS-01 (Field Blank)	1-Nov-16	Faecal Coliforms	0	ct/100mL	ALS
L1852753-2	MS-01 (Field Blank)	1-Nov-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1852753-2	MS-01 (Field Blank)	1-Nov-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1852753-3	MS-01 (Travel Blank)	1-Nov-16	pH	5.55	pH units	ALS
L1852753-3	MS-01 (Travel Blank)	1-Nov-16	Total Suspended Solids	<2.0	mg/L	ALS
L1852753-3	MS-01 (Travel Blank)	1-Nov-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1852753-3	MS-01 (Travel Blank)	1-Nov-16	Total Kjeldahl Nitrogen	<0.15	mg/L	ALS
L1852753-3	MS-01 (Travel Blank)	1-Nov-16	Total Phosphorus	<0.003	mg/L	ALS
L1852753-3	MS-01 (Travel Blank)	1-Nov-16	Faecal Coliforms	0	ct/100mL	ALS
L1852753-3	MS-01 (Travel Blank)	1-Nov-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1852753-3	MS-01 (Travel Blank)	1-Nov-16	Oil & Grease - Total	<2.0	mg/L	ALS

Notes:

Bold results indicate values greater than their respective parameter MDL.

MP-01 and MS-01 field blanks on Nov 1 had result values greater than their respective parameter MDLs.

The result values greater than their respective parameter MDLs were within 3 times the value of each parameter MDL.

Possible explanations for the elevated values include contamination during sampling or analytical error.



TABLE 5.5

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
WATER QUALITY MONITORING RESULTS FOR NATURAL SEDIMENTATION EVENT AT PHILLIPS CREEK

Sample Number	Sample ID	Date Sampled	Parameter	Result	Lab
L1791201-1	MP-PHILIPS-OUT	29-Jun-16	Total Suspended Solids (mg/L)	145	ALS
L1791201-1	MP-PHILIPS-OUT	29-Jun-16	Turbidity (NTU)	75	ALS
L1791201-2	MP-KM17-TRIB	29-Jun-16	Total Suspended Solids (mg/L)	678	ALS
L1791201-2	MP-KM17-TRIB	29-Jun-16	Turbidity (NTU)	229	ALS
L1792157-1	MP-PHILIPS-OUT	30-Jun-16	Total Suspended Solids (mg/L)	36	ALS
L1792157-1	MP-PHILIPS-OUT	30-Jun-16	Turbidity (NTU)	24	ALS
L1792157-2	MP-KM17-TRIB	30-Jun-16	Total Suspended Solids (mg/L)	143	ALS
L1792157-2	MP-KM17-TRIB	30-Jun-16	Turbidity (NTU)	38	ALS
L1792173-2	MP-PHILIPS-OUT	1-Jul-16	Total Suspended Solids (mg/L)	6	ALS
L1792173-2	MP-PHILIPS-OUT	1-Jul-16	Turbidity (NTU)	5	ALS
L1792173-1	MP-KM17-TRIB	1-Jul-16	Total Suspended Solids (mg/L)	146	ALS
L1792173-1	MP-KM17-TRIB	1-Jul-16	Turbidity (NTU)	6	ALS
L1792269-2	MP-PHILIPS-OUT	2-Jul-16	Total Suspended Solids (mg/L)	11	ALS
L1792269-2	MP-PHILIPS-OUT	2-Jul-16	Turbidity (NTU)	3	ALS
L1792269-1	MP-KM17-TRIB	2-Jul-16	Total Suspended Solids (mg/L)	11	ALS
L1792269-1	MP-KM17-TRIB	2-Jul-16	Turbidity (NTU)	4	ALS

Notes:

Sampling Locations

MP-PHILIPS-OUT - Phillips Creek outlet into Milne Inlet

MP-KM17-TRIB - Outlet of Phillips Creek Tributary into Phillips Creek (downstream of Km 17 Bridge)

TABLE 6.1

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
2017 MARY RIVER PROJECT TOTAL CLOSURE AND RECLAMATION SECURITY SUMMARY¹

Authorization	Liability	Total Posted in 2016 (\$)	Security Determination for 2017/18 ASR (\$) ³	Adjustment to be Posted (\$)
				F-D
Type A 2AM-MRY1325	IOL ²	48,846,000	51,384,000	2,538,000
	Crown	1,210,000	1,299,000	89,000
Subtotal Type A		50,056,000	52,683,000	2,627,000
Type B Exploration 2BE-MRY1421	IOL ²	-	-	-
	Crown	1,250,000	1,247,000	-
Subtotal Type B Exploration		1,250,000	1,247,000	-
GRAND TOTAL		51,306,000	53,930,000	2,627,000

NOTES:

¹Totals rounded to nearest '000 in CAD

²All security relating to IOL held by Qikiqtani Inuit Association (QIA) under Commercial Lease No. Q13C301

³As defined by January 20, 2017 NWB Correspondance, Re: Type "A" Water Licence No. 2AM-MRY1325, Baffinland Iron Mines Corporation , Mary River Mine Project: Direction from Nunavut Water Board Under the Annual Security Review Process Established Under Part C and Schedule C of the Water Licence

TABLE 7.1

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
QUANTITIES OF SPECIFIED SUBSTANCES REMOVED FROM BORROWS AND QUARRIES (BCM_s)
BY QUARTER AND CALENDAR YEAR

Quarter	Quarry QMR2			Quarry Q01		
	Rock	Unconsolidated Material	Organics	Rock	Unconsolidated Material	Organics
Jan-March 2016	4,906	0	0	22,706	0	0
April-June 2016	25,293	0	0	0	0	0
July-Sept 2016	63,509	0	0	12,422	0	0
Oct-Dec 2016	0	0	0	4,160	0	0
Total for 2016	93,708	0	0	39,288	0	0

Quarter	Km 2 Borrow			Km 97 Borrow			Cumulative Total
	Rock	Unconsolidated Material	Organics	Rock	Unconsolidated Material	Organics	
Jan-March 2016	0	537	0	0	4,766	0	
April-June 2016	0	0	0	0	4,020	0	
July-Sept 2016	0	0	0	0	0	0	
Oct-Dec 2016	0	0	0	0	1,379	0	
Total for 2016	0	537	0	0	10,165	0	143,698 BCM

Notes:

Volumes based on a comparison between survey surfaces. Volumes removed expressed in Banked Cubic Metres (BCM_s).

Q3 (July - September) volumes for QMR2 and Q1 were calculated using the following equation:

(August 31, 2016 Drone Survey) – (2015 Q4 + 2016 Q1 + 2016 Q2) = (2016 Q3)



BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
QUANTITIES OF SPECIFIED SUBSTANCES REMOVED FROM BORROWS AND QUARRIES (BCM^s)
SEPTEMBER 1, 2015 TO AUGUST 31, 2016 REPORTING PERIOD

Specified Substances	Quarry QMR2	Quarry Q01	Km 2 Borrow	Km 97 Borrow	Total - All Quarry and Borrow Sites
Rock	100,608	35,128	0	0	135,736
Unconsolidated Material	0	0	13,087	16,853	29,940
Organics	0	0	0	0	0
Annual Total (BCM)¹	100,608	35,128	13,087	16,853	165,676

Notes:

1. No Quarrying completed in Quarries D1Q2 or D1Q1 during Sept 2015 to August 2016 reporting period.
2. QMR2 surface: starting surface July 31, 2015; ending surface September 5, 2016, aerial drone surveys.
3. Q1 surfaces: starting surface July 11, 2015; ending surface August 27, 2015, aerial drone surveys.
4. Km 97 starting surface based on combined data between Monteith and Sutherland original survey and 2008 Lidar data
5. Km 97 ending survey based on August 31, 2016, aerial drone survey.
6. Survey volumes for Km 2 and Km 97 to be verified based on upcoming Photosat satellite imagery, when available.

TABLE 8.1
BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT
2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS

MEETINGS WITH PUBLIC, GOVERNMENT AND INUIT ORGANIZATIONS

Date	Group	Location	Description
April 5 - 6, 2016	QIA	Oakville	IIBA Joint Executive Committee Meeting
April 27, 2016	Marine Environment Working Group	Ottawa	Pre-Field Season Meeting
April 28, 2016	Terrestrial Environment Working Group	Ottawa	Pre-Field Season Meeting
May 11, 2016	Mary River Community Group	Pond Inlet	Meeting with Mary River Community Group (Phase 2)
May 16, 2016	QIA	Teleconference	IIBA Joint Management Committee Meeting
May 27, 2016	QIA	Teleconference	IIBA Joint Executive Committee Meeting
June 15 – 16, 2016	QIA	Mary River Mine Site	IIBA Joint Executive Committee Meeting
July 8, 2016	QIA	Teleconference	IIBA Joint Management Committee Meeting
July 21, 2016	QIA, Baffinland	Teleconference	Lease, Closure and Security
July 22, 2016	QIA, Baffinland	Teleconference	2016 Marine Monitoring
July 22, 2016	NIRB	Call	NIRB Annual Report Comments
August 4, 2016	Marine Environment Working Group	Teleconference	2016 Marine Monitoring
August 11, 2016	QIA	Teleconference	IIBA Joint Management Committee Meeting
August 16, 2016	NIRB	Call	NIRB Annual Report Comments
August 19, 2016	QIA	Teleconference	IIBA Joint Executive Committee Meeting
September 7 - 8, 2016	QIA	Oakville	IIBA Joint Executive Committee Meeting
September 14 - 21, 2016	QIA, Baffinland	Mary River, Nunavut	Annual Security Audit
October 17 - 20, 2016	QIA	Oakville	IIBA Joint Management Committee Meeting
October 18, 2016	NIRB	Meeting	Project and Phase 2 Update
October 20, 2016	QIA	Teleconference	IIBA Joint Executive Committee Meeting
October 21, 2016	QIA, Baffinland	Teleconference	Review and Discussion of Draft 2017 Work Plan
October 31, 2016	NWB	Call	Closure Security
November 3, 2016	WWF	Call	MEWG Meeting and Marine Monitoring
November 8 - 10, 2016	QIA	Ottawa	IIBA Joint Management Committee Meeting
November 8 - 9, 2016	QIA	Ottawa	IIBA Joint Executive Committee Meeting
November 10, 2016	QIA	Call	Winter Sealift
November 16, 2016	QIA, Baffinland	Teleconference	Ongoing Lease Items
November 16, 2016	Pond Inlet Hamlet Council Members	Mary River Mine Site	Site visit with Hamlet Council Members from Pond Inlet
November 21 - 25, 2016	HTOs (Arctic Bay, Pond Inlet), Public, Hamlet Council,	Arctic Bay, Pond Inlet, Hall Beach, Igloolik, Clyde River	Phase 2 North Baffin Community Tour
November 25, 2016	QIA	Teleconference	IIBA Joint Management Committee Meeting
November 29, 2016	Marine Environment Working Group	Iqaluit	Post-Field Season Meeting
November 30, 2016	Terrestrial Environment Working Group	Iqaluit	Post-Field Season Meeting
December 1, 2016	INAC	Iqaluit	Project Update and Phase 2
December 5, 2016	QIA	Teleconference	IIBA Joint Management Committee Meeting
December 6, 2016	MLA, Hamlet Council, Mittimatalik Hunters and Trappers Organization	Pond Inlet	Phase 2 and Proposed Winter Sealift
December 9, 2016	QIA, Baffinland, INAC, NWB	Teleconference	Annual Security Review Teleconference
December 13, 2016	NIRB	Teleconference	Winter Resupply
December 15 - 16, 2016	QIA	Oakville	IIBA Joint Management Committee Meeting
December 16, 2016	QIA, Baffinland	Oakville	QIA, Baffinland Relationship
December 21, 2016	QIA	Teleconference	IIBA Joint Management Committee Meeting
December 21, 2016	QIA, Baffinland	Teleconference	Ongoing Lease Items

TABLE 8.2

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
STAKEHOLDER SITE VISITS TO MARY RIVER PROJECT

Date	Organization or Group
January 5 - 7, 2016	ECCC - Environmental Inspector
January 15 - 21, 2016	WSCC Mines Inspector
May 4 - 10, 2016	WSCC Mines Inspector
May 18 - 20, 2016	ECCC and INAC - Environmental Inspectors and Water Resources Officers
June 24 - 28, 2016	QIA - Environmental Inspectors
July 6 - 8, 2016	INAC - Water Resources Officer
July 12 - 16, 2016	WSCC Mines Inspectors
July 13 - 16, 2016	NIRB - Environmental Inspectors
July 27 - August 3, 2016	INAC - Water Resources Officers
August 11 - 15, 2016	QIA - Environmental Inspector
September 7 - 14, 2016	WSCC Mines Inspector
September 15 - 21, 2016	QIA - Auditors
September 28 - 30, 2016	INAC - Water Resources Officers
October 5 - 7, 2016	ECCC - Environmental Inspector

TABLE 9.1
BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
MONTHLY AND ANNUAL QUANTITIES OF ORE GENERATED BY THE

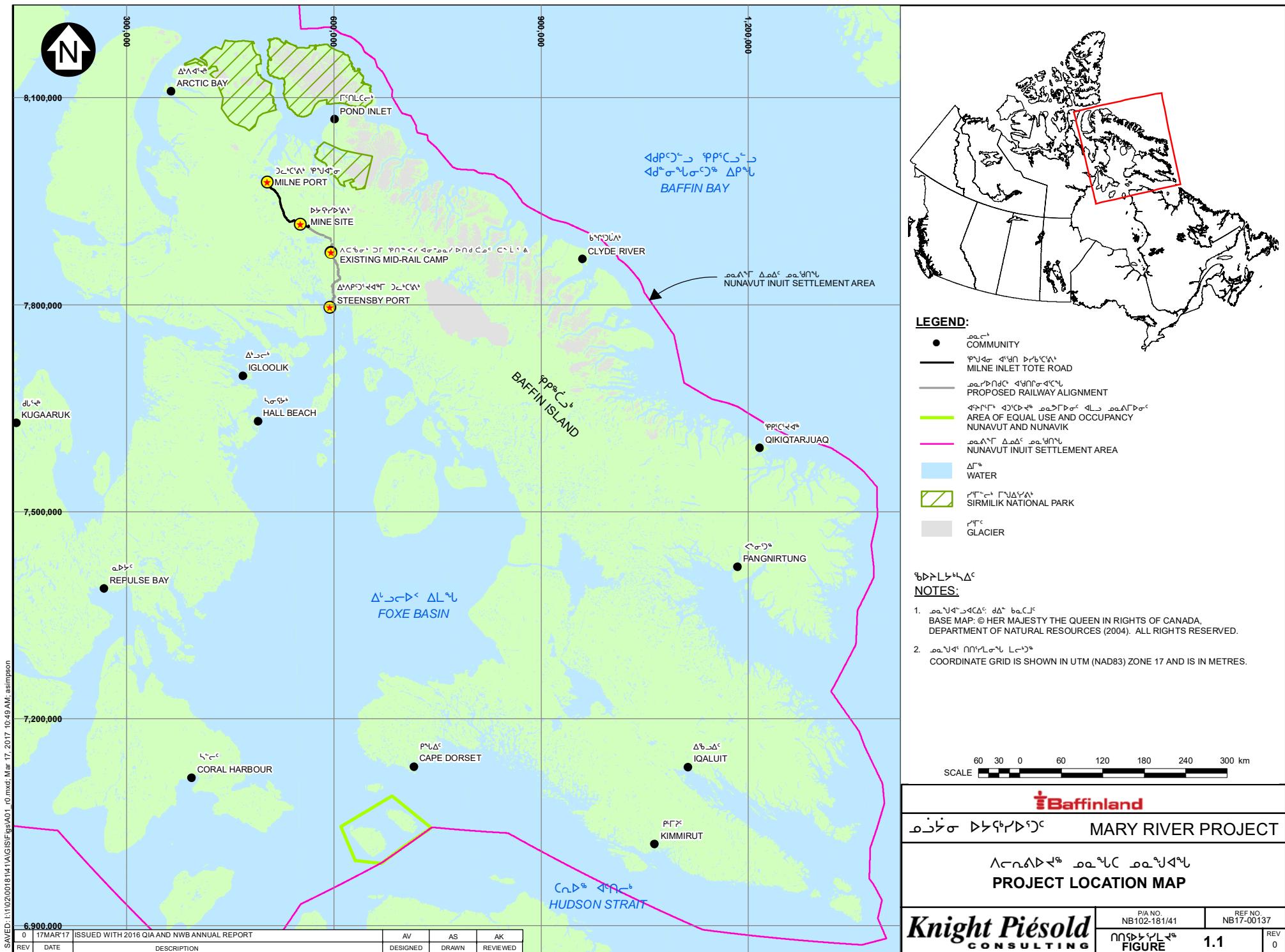
Month	Quantity Ore Produced (wet tonnes)	
	Lump	Fines
January	184,428	68,067
February	256,454	75,551
March	256,715	74,225
April	256,974	85,457
May	79,156	31,473
June	136,156	68,095
July	200,890	83,522
August	202,345	55,046
September*	103,644	121,308
October	261,452	85,713
November	223,441	87,457
December	287,428	90,550
Total	2,449,084	926,465
Annual Total	3,375,549	

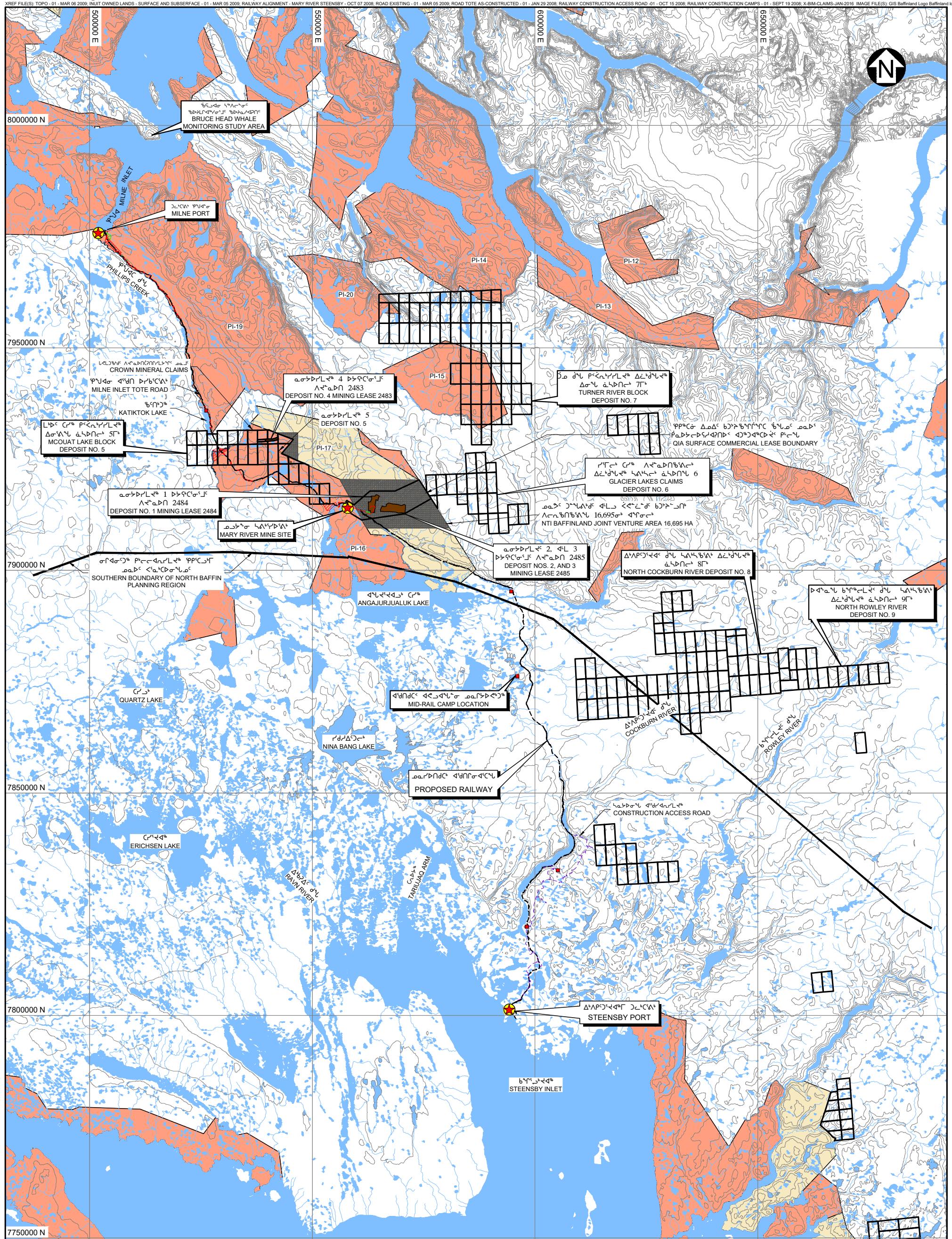
TABLE 9.2
BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
MONTHLY AND ANNUAL QUANTITIES OF ORE SHIPPED BY THE PROJECT

Month	Quantity Ore Shipped (tonnes)	
	Lump	Fines
January	0	0
February	0	0
March	0	0
April	0	0
May	0	0
June	0	0
July	200,724	0
August	736,269	576,289
September	935,427	82,251
October	118,630	71,046
November	0	0
December	0	0
Total	1,991,050	729,586
Annual Total:	2,720,636	

FIGURES



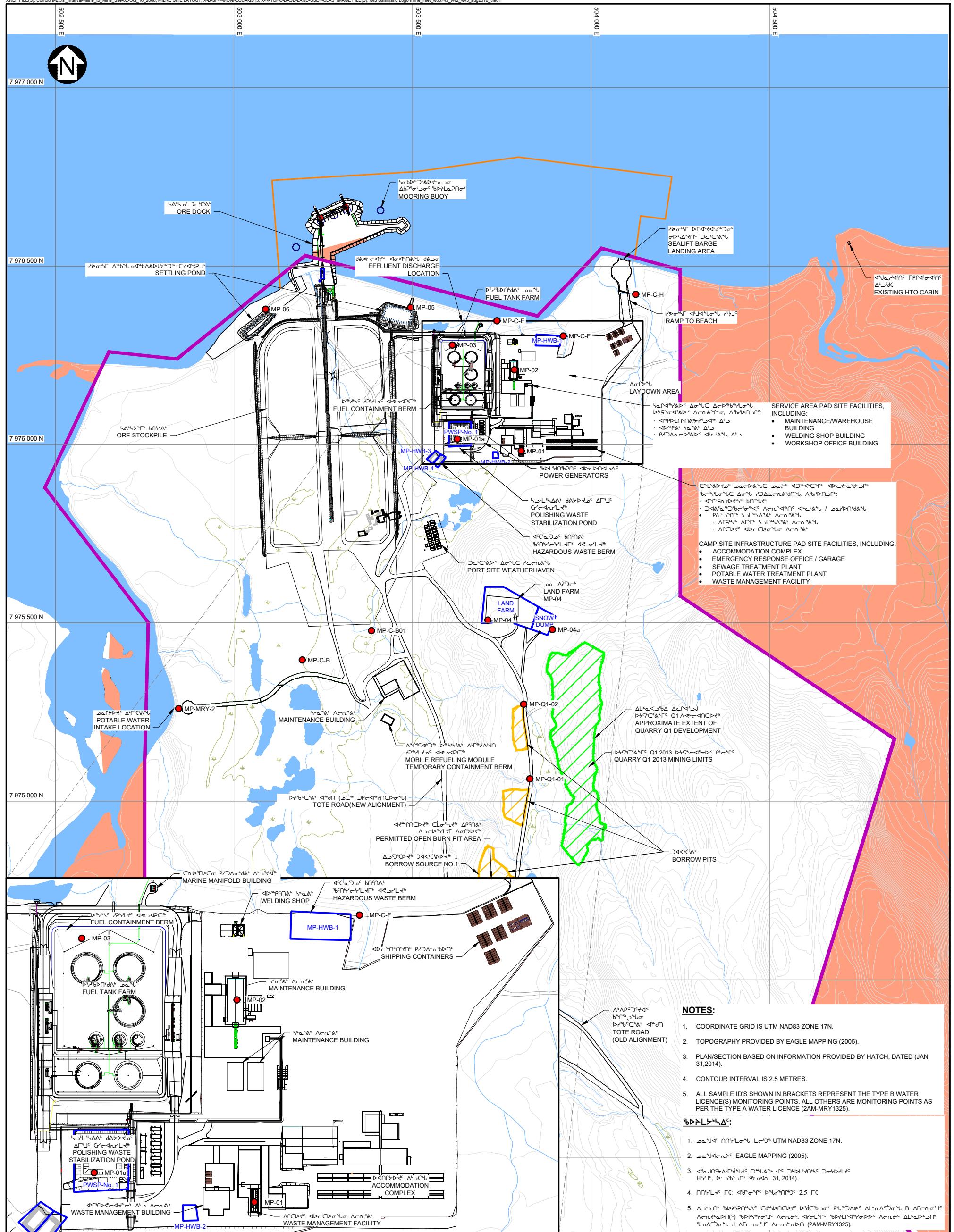


LEGEND:	
WATER	MILNE INLET TOTE ROAD
INUIT OWNED LAND - SURFACE ONLY EXCLUDING MINERALS	PROPOSED RAIL ALIGNMENT
INUIT OWNED LAND - SURFACE AND SUBSURFACE INCLUDING MINERALS	PROPOSED CONSTRUCTION ACCESS ROAD
MINERAL LEASE BOUNDARY	RIVER/STREAM/DRAINAGE
CROWN LAND	CONTOUR
EXISTING BORROW AREA (IOL COMMERCIAL LEASE)	PROPOSED TEMPORARY CONSTRUCTION CAMP
EXISTING ROCK QUARRY (IOL COMMERCIAL LEASE)	
NTI EXPLORATION AREA	
CROWN MINERAL CLAIMS	

- NOTES:
1. BASE MAP: © HER MAJESTY THE QUEEN IN RIGHTS OF CANADA, DEPARTMENT OF NATURAL RESOURCES (2004). ALL RIGHTS RESERVED.
 2. COORDINATE GRID IS SHOWN IN UTM (NAD83) ZONE 17
 3. CONTOURS ARE IN METRES. CONTOUR INTERVAL VARIES.
 4. PROPOSED RAIL ALIGNMENT PROVIDED BY CANARAIL CONSULTANTS INC.
 5. BIM CLAIM BOUNDARIES PROVIDED BY BAFFINLAND IRON MINES CORPORATION, DECEMBER 12 2012.

NOTES:

1. مارجع: © 2004, گورنمنت کانادا، وزارت منابع طبیعی.
2. مختصات: UTM (NAD83) ZONE 17.
3. ارتفاع: متر.
4. خط راه آهن: توسط CANARAIL CONSULTANTS INC.
5. محدوده مدعای بیم: توسط BAFFINLAND IRON MINES CORPORATION در 12 دسامبر 2012.



0	17MAR'17	ISSUED WITH 2016 QIA AND NWB ANNUAL REPORT	AV	AS	AH
REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED

