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NUNAVUT WATER BOARD  
NUNAVUT IMALIRIYIN KATIMAYINGI  
OFFICE DES EAUX DU NUNAVUT

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File No.: **2BB-MRY0710**

July 27, 2007

Attention: Mr. Rod Cooper, P. Eng.,  
Vice President Operations  
Baffinland Iron mines corporation  
Suite 1016, 120 Adelaide Street West  
Toronto, ON M5H 1T1  
Email: [rod.cooper@baffinland.com](mailto:rod.cooper@baffinland.com)

**RE: Licence 2BB-MRY0710**

Dear Mr. Cooper,

Please find attached Licence No. **2BB-MRY0710** issued to Baffinland Iron Mines Corporation (BIMC) by the Nunavut Water Board pursuant to its authority under Article 13 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*. The terms and conditions of the attached Licence related to water use and waste disposal are an integral part of this approval.

If the Licensee contemplates the renewal of this Licence, it is the responsibility of the Licensee to apply to the NWB for its renewal. The past performance of the Licensee, new documentation and information, and issues raised during a public hearing, if the NWB is required to hold one, will be used to determine the terms and conditions of the Licence renewal. Note that if the Licence expires before the NWB issues a new one, then water use and waste disposal must cease, or the Licensee will be in contravention of the Nunavut Land Claims Agreement. However, the expiry or cancellation of a licence does not relieve the holder from any obligations imposed by the licence. The NWB recommends that an application for the renewal of this Licence be filed at least three months prior to the Licence expiry date.

If the Licensee contemplates or requires an amendment to this licence, the NWB may decide, in the public interest, to hold a public hearing. The Licensee should submit applications for amendment as soon as possible to give the NWB sufficient time to go through the amendment process. The process and timing may vary depending on the scope of

the amendment, however a minimum of 30 days is required from time of acceptance by the NWB. It is the responsibility of the Licensee to ensure that all application materials have been received and acknowledged by the Manager of Licensing.

The NWB strongly recommends that the Licensee consult the comments received by interested persons on issues identified. Comments were received from the Government of Nunavut Department of Environment, Indian and Northern Affairs Canada and Environment Canada. The NWB notes that the Government of Nunavut and Environment Canada request the installation of an incineration device capable of meeting emission limits established under the Canada-wide Standards (CWS) for Dioxins and Furans and the CWS for Mercury Emissions. All comments are attached for your consideration.

Sincerely,



Dionne Filiatrault  
A/Chief Administrative Officer

DF/df/dh

Enclosure: Licence No. 2BB-MRY0710  
Comments: GN-DOE, INAC, EC

cc: Distribution List

# DECISION

## LICENCE AMENDMENT No. 1

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<b>Licensee:</b>	<b>Baffinland Iron Mines Corporation</b>
<b>License No:</b>	<b>2BB-MRY010 Type “B”</b>
<b>Date of License:</b>	<b>February 20, 2007</b>
<b>Effective Date of Amendment No.1:</b>	<b>July 16, 2007</b>

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This is the decision of the Nunavut Water Board (NWB) with respect to an application for an amendment to the water licence issued February 20, 2007 made by:

### **BAFFINLAND IRON MINES CORPORATION**

to allow for the use of water and disposal of waste to for exploration and bulk sampling operations, all-weather road construction, camp operations, domestic waste treatment and/or disposal, fuel containment, and all associated uses at the Mary River exploration and Bulk Sampling Project. This Project is located 160 km south of the community of Pond Inlet in the Qikiqtani Region, Nunavut, with the approximate geographical coordinates:

Mary River Camp located at Latitude 71 18'30" N and Longitude 79 23'30" W;  
Milne Inlet Camp located at Latitude 71 53'32" N and Longitude 80 53'41" W; and  
Midway Camp located at Latitude 71 26'07" N and Longitude 80 10'37" W.

After having been satisfied that the application was in conformity with the applicable Land Use Plan and exempt from the requirement for screening by the Nunavut Impact Review Board in accordance with Schedule 12.1, Paragraph 5 of the *Nunavut Land Claim Agreement* (NLCA), the NWB decided that the application could proceed through the regulatory process. In accordance with S.55.1 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (NWNSTRA) and Article 13 of the NLCA, public notice of the application was given and interested persons were invited to make representations to the NWB.

After reviewing the submission of the Applicant and representations made by interested persons, the NWB, having given due regard to the facts and circumstances, the merits of the submissions made to it and to the purpose, scope and intent of the NLCA and of the NWNSTRA, decided to waive the requirement to hold a public hearing and furthermore to delegate its authority to approve the application to the Chief Administrative Officer pursuant to S. 13.7.5 of the NLCA and S. 49(a) of the NWNSTRA, and determined that pursuant to its authority under Article 13 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, the Nunavut Water Board hereby grants the following license amendment.

**Licence Number 2BE-MRY0708 issued February 20, 2007 shall be amended to Licence Number 2BB-MRY0710 subject to the terms and conditions contained therein. (Motion #: 2007-19)**

SIGNED this 16 day of July 2007 at Gjoa Haven, NU.



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Dionne Filiatrault  
A/Chief Administrative Officer

## **Licence Number: 2BB-MRY0710**

### **BACKGROUND**

Baffinland Iron Mines Corporation (BIMC) submitted an application dated December 4, 2006 to the Nunavut Water Board (NWB) for amendment to water licence 2BE-MRY0708 for the Mary River Project. The original water licence was issued for exploration activities and camp operations by the NWB on June 11, 2004, renewed 2006 and again on February 20, 2007. The current water licence is due to expire on December 31, 2008.

### **CURRENT APPLICATION**

The current application for amendment to include bulk sampling operations was received on December 4, 2006. As a matter of process the application was sent to Nunavut Planning Commission for conformity assessment and subsequently screened by the Nunavut Impact Review Board in accordance with Article 11 and 12 of the NLCA respectively, prior to full consideration by the NWB. The application was distributed for public review on May 8, 2007. Comments were received from the following interested parties: Environment Canada (EC), Indian and Northern Affairs Canada (INAC) and the Government of Nunavut, Department of Environment (GN-DOE). A final response to issues raised by the Parties was received from BIMC on June 14, 2007.

### **ISSUES**

The following section outlines the issues raised by interested parties and provides the background on the terms and conditions imposed within the body of the licence as they relate to the amendment request received December 4, 2006.

#### **General**

The Licence number for this water licence is amended to 2BB-MRY0710 in consideration of the amendment request to include Bulk Sampling operations and the proposed time schedule of the project.

#### *Licence Term*

The Licence issued on February 20, 2007 was issued with a term of approximately two (2) years, set to expire on December 31, 2008. The application for amendment to include the Bulk Sample Project, indicated a project completion date of February 28, 2010. The NWB has taken into consideration the magnitude of the Project and has decided that extending the Licence term for an additional 14 months would benefit the overall project, timing and ability of the Licensee to incorporate data obtained during the Project into a final Abandonment and Restoration Plan if required at that time. No comments were received from interested parties on the extension of the Term of Licence.

#### *Security*

In accordance with the NWNSRTA, S. 76(1) the Board may *require an applicant, a Licensee or a prospective assignee to furnish and maintain security with the Minister in the form, of the nature, subject to such terms and conditions and in an amount prescribed by, or*

*determined in accordance with, the Regulations or that is satisfactory with the Minister.* The regulations allows the Board to fix the amount of security required to be furnished by an applicant, in an amount not exceeding the aggregate of the cost of (a) abandonment of the undertaking (b) restoration of the site of the undertaking; and (c) any ongoing measures that may remain to be taken after the abandonment of the undertaking. As such the NWB has included terms and conditions requiring the licensee to provide a full cost assessment for abandonment and restoration of the undertaking. The assessment should be completed using the most recent version of the Reclaim model (INAC) or other established industry standard. The NWB recommends that the Licensee refer to the NWSRTA and Regulations for additional information.

### **Water Use**

The water use under this Licence has been adjusted to reflect the volume of water required to support the Bulk Sample Project operations with respect to the camps proposed by the Licensee. Total water use for the project has been increased to ~~535m3~~ 515m3 /day. On the issue of water use, regulatory consideration and application of the *Regulations* needed to be considered and is discussed below.

### **Waste Disposal**

#### *General*

In order to insure proper function of the earthworks the Board requires that a Geotechnical Engineer inspect the site annually during the summer and provide a report with recommendation to the NWB. The report must also contain a cover letter from Licensee outlining a plan to address the Geotechnical Engineer's recommendations. This requirement is detailed under Part D, Item 20.

#### *Sewage Treatment*

The Licensee proposes to use pre-engineered package sewage treatment systems during operations for the Mary River and Milne Inlet camps. In addition, as a contingency measure, the Licensee plans to discharge to lined pond(s) prior to final discharge if there is a concern that regulated discharges may not meet licence requirements. The lined ponds are to be used as an interim storage facility during construction prior to commissioning of the sewage treatment systems. Sewage from the Midway camp will be collected and disposed of in a camp incinerator.

With respect to Sewage Management for the undertaking, BIMC has committed to provide a Waste Water Management Plan prior to discharges to the environment to address concerns raised by INAC and GN-DOE and outline the Operation and Maintenance of the Wastewater Treatment Facilities.

#### *Landfill Facility*

On June 13, 2006, Baffinland Iron Mines Corporation committed to submit to the Board a detailed for construction final design for its inert waste landfill proposed in the application. The Board agrees and requires BIMC to submit the necessary information at least sixty (60) days prior to construction.

#### *Bulk Sample Management Plan*

The NWB needs to ensure that potential impacts for ARD and ML are assessed, managed and mitigated where necessary and requires submission of a Bulk Sample Management Plan to address the concerns of GN-DOE, INAC, EC and the NIRB screening decision requirements. In addition the Management plan should address the management of all locations.

#### *Spill Contingency Planning*

The Spill Contingency Plan shall be revised to reflect the amended scope of the undertaking and shall address comments received by the Parties during the NWB review process.

The renewal licence issued on February 20, 2007 required the Licensee to assess conformity to the CCME code of practice for the storage of petroleum products. On April 13, 2007 BIMC confirmed that the Code did not apply under the scope of exploration. The Board requests that, with the construction of new bulk storage facilities at Milne Inlet and Mary River, BIMC confirm the applicability of the CCME guidance document “*Aboveground Storage Tank Systems for Petroleum and Allied Petroleum Products (2003)*”. Following construction, the licensee is requested to submit as constructed design and as-built drawings.

#### *Site Water Management Plan*

The licence issued on February 20, 2006 required, under Part B, Item 3, the submission of a Site Water Management Plan (SWMP). The NWB is currently in receipt of the Plan, received May 20, 2007. The NWB recognizes the need for the SWMP and the monitoring to take place during 2007; however, with the submission of the Bulk Sample Amendment Application, additional monitoring requirements are needed. Therefore, rather than develop a separate management plan for the Bulk Sample Program, the NWB will require the resubmission of the SWMP to incorporate the revised scope of the undertaking as presented in the application for amendment.

The Licensee is to also ensure that the concerns raised through the public review period, brought forward by the GN-DoE, Env. Can. and INAC are taken into consideration within the revised SWMP. The requirement for the revised SWMP is address within Part B, Item 7.

#### *Environmental Monitoring*

The NWB has established minimum monitoring requirements as terms and conditions of this licence. BIMC committed to provide an Environmental Monitoring Plan in their response to the concerns expressed by interested Parties. The Board accepts the commitment made by BIMC and requests that the Licensee, in preparation of the document consider the existing terms and conditions of this licence and issues expressed by the Parties in the review of this amendment request.

#### **Other**

##### *Regulatory*

The NWB acknowledges EC’s concern that the application for amendment should have been classified as an Industrial Undertaking in accordance with Schedule II of the *Northwest*

*Territories Water Regulation*, Licensing Criteria. Understanding that the project is likely to proceed to full scale mine development and given that no public concerns were expressed, the NWB determined to proceed with the application as current classified as a Type “B” Mining and Milling Undertaking.

**Other Applicable Legislation**

The Licensee is directed to the written submissions received during the public review period for this Application for renewal, specifically to the comments received by the Government of Nunavut-Department of Environment, Environment Canada and Indian and Northern Affairs Canada.

Environment Canada reminds the Applicant that the Fisheries Act, Section 36(3) requires that all wastes discharged to water be demonstrated to be non-toxic. The Board therefore requires that Acute Toxicity testing be performed on the WWTF effluents.

In addition, the NWB recommends that the Licensee confirm with DFO, the regulatory requirements related to stream crossings and in-stream work.

The Licensee is also reminded that compliance with the terms and conditions of this Licence does not absolve the Licensee from the responsibility for compliance with the requirements of all other applicable Federal, Territorial and Municipal legislation.



**LICENCE 2BB-MRY0710 (AMENDED)**

Pursuant to the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada*, the Nunavut Water Board, hereinafter referred to as the Board, hereby grants to

**BAFFINLAND IRON MINES CORPORATION**

(Licensee)

of

**SUITE 1016, 120 ADELAIDE STREET WEST  
TORONTO ON M5H 1T1**

(Mailing Address)

hereinafter called the Licensee, the right to alter, divert or otherwise use water for a period subject to restrictions and conditions contained within this Licence:

**2BB-MRY0710**

Licence Number

**NUNAVUT 05**

Water Management Area

**MARY RIVER PROJECT, QIKIQTANI REGION, NUNAVUT**

Location

**WATER USE AND WASTE DISPOSAL**

Purpose

**MINING AND MILLING – TYPE “B”**

Classification of Undertaking

**535 515 CUBIC METRES PER DAY**

Quantity of Water Not to Exceed

**FEBRUARY 20, 2007, as Amended July 16, 2007**

Date of Licence

**FEBRUARY 28, 2010**

Expiry Date of Licence

Dated this 16<sup>th</sup> day of July 2007 at Gjoa Haven, NU.



**Dionne Filiatrault**

**A/Chief Administrative Officer**

## **PART A: SCOPE, DEFINITIONS AND ENFORCEMENT**

### **1. Scope**

This Licence allows for the use of water and the disposal of waste for an undertaking classified as Mining and Milling as per Schedule II of the Regulations. This Licence allows for exploration and bulk sampling operations, all-weather road construction, camp operations, domestic waste treatment and/or disposal, fuel containment, and all associated uses at the Mary River Exploration and Bulk Sampling Project located in the Qikiqtani Region, Nunavut.

- i. This Licence is issued subject to the conditions contained herein with respect to the taking of water and the depositing of waste of any type in any waters or in any place under any conditions where such waste or any other waste that results from the deposits of such waste may enter any waters. Whenever new Regulations are made or existing Regulations are amended by the Governor in Council under the Nunavut Waters and Nunavut Surface Rights Tribunal Act, or other statutes imposing more stringent conditions relating to the quantity or type of waste that may be so deposited or under which any such waste may be so deposited, this Licence shall be deemed, upon promulgation of such Regulations, to be subject to such requirements; and;
- ii. Compliance with the terms and conditions of this Licence does not absolve the Licensee from responsibility for compliance with the requirements of all applicable Federal, Territorial and Municipal legislation.

### **2. Definitions**

**“Act”** means the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*;

**“Amendment”** means a change to original terms and conditions of this Licence requiring correction, addition or deletion of specific terms and conditions of the Licence; modifications inconsistent with the terms of the set terms and conditions of the Licence;

**“Appurtenant Undertaking”** means an undertaking in relation to which a use of water or a deposit of waste is permitted by a licence issued by the Board;

**“Board”** means the Nunavut Water Board established under the *Nunavut Land Claims Agreement* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*;

**“Bulk Sample Project”** means the activities, in addition to those of the Licence renewal, as described in the application for amendment received December 4, 2006.

**“Engineer”** means a professional engineer registered to practice in Nunavut in accordance with the Engineering, Geological and Geophysical Act (Nunavut) S.N.W.T. 1998, c.38, s.5;

**“Greywater”** means all liquid wastes from showers, baths, sinks, kitchens and domestic washing facilities, but does not include toilet wastes;

**“Infrastructure”** means all construction necessary for mining, such as watercourse crossings, piping, sewage and water systems, reservoirs, and roads;

**“Inspector”** means an Inspector designated by the Minister under Section 85 (1) of the *Act*;

**“Licensee”** means the holder of this Licence;

**“Minewater”** means groundwater or any water used in mining, which is pumped or flows out of any underground workings or open pit;

**“Modification”** means an alteration to a physical work that introduces a new structure or eliminates an existing structure and does not alter the purpose or function of the work, but does not include an expansion;

**“Nunavut Land Claims Agreement”** (NLCA) means the “*Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada*”, including its preamble and schedules, and any amendments to that agreement made pursuant to it;

**“Polishing/Waste Stabilization Ponds”** (PWSP) means the containment ponds designed as interim and/or contingency containment of sewage at the Mary River and Milne Inlet Camps;

**“Regulations”** means the *Northwest Territories Water Regulations* sor/93-303 8th June, 1993, omitting Section 5, Water Use or Waste Deposit Without a Licence;

**“Sewage”** means all toilet wastes and greywater;

**“Spill Contingency Plan”** means a Plan developed to deal with unforeseen petroleum and chemical events that may occur during the operations conducted under the Licence;

**“Sump”** means an excavation in impermeable soil for the purpose of catching or storing water or waste;

**"Toilet Wastes"** means all human excreta and associated products, but does not include greywater;

**"Waste"** means, as defined in S.4 of the *Act*, any substance that, by itself or in combination with other substances found in water, would have the effect of altering the quality of any water to which the substance is added to an extent that is detrimental to its use by people or by any animal, fish or plant, or any water that would have that effect because of the quantity or concentration of the substances contained in it or because it has been treated or changed, by heat or other means.

**"Waste Water Treatment Facilities"** (WWTF) means the treatment facilities and/or associated contingency infrastructure used for the treatment of sewage at the Mary River Camp(s) and the Milne Inlet Camp.

### **3. Enforcement**

- i. Failure to comply with this Licence will be a violation of the *Act*, subjecting the Licensee to the enforcement measures and the penalties provided for in the *Act*;
- ii. All inspection and enforcement services regarding this Licence will be provided by Inspectors appointed under the *Act*; and
- iii. For the purpose of enforcing this Licence and with respect to the use of water and deposit or discharge of waste by the licensee, Inspectors appointed under the *Act*, hold all powers, privileges and protections that are conferred upon them by the *Act* or by other applicable law.

## **PART B: GENERAL CONDITIONS**

1. The water use fee of \$30, payable to the Receiver General for Canada, shall be sent to the Board annually in advance of any use in accordance with Section 9 of the *Regulations*.
2. The Licensee shall submit to the Board for approval within ninety (90) days of the effective date of the amended licence, an assessment of current restoration liability using the most recent version of RECLAIM or other equivalent method as approved by the Board.
3. The Licensee shall furnish and maintain security with the Minister as required by the Board in a form and amount acceptable to the Minister.
4. The security deposit shall be maintained until such time as the Minister is satisfied that the Licensee has complied with all provisions of the approved Abandonment

and Restoration Plan. This clause shall survive the expiry of this Licence or renewals thereof.

5. The Licensee shall file an Annual Report on the appurtenant undertaking with the Board no later than March 31st of the year following the calendar year being reported which shall contain the following information:
  - i. the monthly and annual quantities in cubic metres of all freshwater obtained from Camp Lake at Monitoring Station MRY-1, Phillips Creek at Monitoring Station MRY-2 and km99 Lake at Monitoring Station MRY-3;
  - ii. the monthly and annual quantities in cubic metres of all freshwater obtained for the purposes of drilling and other associated uses;
  - iii. the monthly and annual quantities in cubic meters of treated Sewage effluent discharged at Monitoring Station MRY-4, Mary River Camp WWTF and at Monitoring Station MRY-5, Milne Inlet Camp WWTF along with any waters discharged from the respective PWSP's;
  - iv. the monthly and annual quantities in cubic metres of Sludge removed from the Waste Water Treatment Facilities at Mary River Camp and Milne Inlet Camp and details on the storage and/or disposal;
  - v. A summary, including photographic records before, during and after construction activities; any modifications and/or major maintenance work carried out on the Water Supply and the Wastewater Treatment Facilities, including all associated structures, and an outline of any work anticipated for the next year;
  - vi. The geochemical analysis of drill cores as per Part F, Item 3;
  - vii. Detailed discussion on the performance, installation, and evaluation, including the use of photographic record, of the primary and secondary containment functions used in fuel storage to safeguard impacts to freshwaters;
  - viii. A list of unauthorized discharges and a summary of follow-up actions taken;
  - ix. A brief description of follow-up action taken to address concerns presented within inspection and compliance reports prepared by the Inspector;
  - x. Updates in the form of an addendum or revisions to the Abandonment and Restoration Plan, Emergency Spill Response Plan, Waste Rock and Ore Storage Plan, QA/QC, Landfill Operations and Maintenance Plan, and Landfarm Plan

- xi. A description of all progressive and or final reclamation work undertaken, including drill sites, presented with photographic records of site conditions before, during and after completion of operations;
  - xii. An updated estimate of the current restoration liability required under Part B, Item 2, based upon the results of restoration research, project development monitoring, and any changes or modifications to the Project;
  - xiii. Tabular summaries of all data generated under the Monitoring Program, Part I;
  - xiv. A summary of public consultation/participation, describing consultation with local organizations and residents of the nearby communities, if any were conducted;
  - xv. A summary of any specific studies or reports requested by the Board, and a brief description of any future studies planned or proposed; and
  - xvi. Any other details on water use or waste disposal requested by the Board by November 1 of the year being reported.
6. The Licensee shall submit to the Board a Site Water Management Plan, within ninety (90) days following the issuance of the licence, for Board approval, that includes but is not limited to the following:
- i. A description of the quantity and direction of surface water flow from the road, over the surrounding landscape, and the overall site, along with topographic maps that effectively delineate the movement of waters on site;
  - ii. A detailed description of the location and capacity of water retention areas that would allow for the management of surface water runoff from the road and other Infrastructure;
  - iii. A detailed description of the sampling locations along the access road and the overall site where the water procured would provide the most representative analytical results, as determined by an appropriately qualified Engineer through a clear disclaimer outlining any limitations to judgment made by the Engineer, of surface water quality draining from the road surface and any other Infrastructure; and
  - iv. Any further information that a qualified Engineer believes to be pertinent to describe the movement and quality of surface water draining from the access road and any other Infrastructure.

7. The Licensee shall submit to the Board for approval, within ninety (90) days of the effective date this license, a revised Site Water Management Plan referred to in Part B, Item 6 to reflect changes in operation and infrastructure as a result of the amendment application for the Bulk Sampling Project. The revised Plan shall consider water management associated with all infrastructure components of the undertaking, including , but not be limited to:
  - i. Bulk Sample Open Pit operations;
  - ii. Weathered ore/waste storage piles;
  - iii. Temporary ore storage at Mary River and Milne Inlet;
  - iv. Bulk fuel storage areas;
  - v. Ore processing area;
  - vi. Access roads;
  - vii. All weather road; and
  - viii. Associated construction material quarry operations.
8. If the Board does not approve the Plan referred to in Part B, Item 7, the Licensee shall revise the Plan and resubmit to the Board for approval within two (2) months of receiving notification of the Board's decision
9. The Licensee shall implement the Plans specified in this Part as and when approved by the Board.
10. The Licensee shall notify the NWB of any changes in operating plans or conditions associated with this project at least thirty (30) days prior to any such change.
11. The Licensee shall install and maintain flow meters or other such devices, or implement suitable methods required for the measuring of water and waste volumes, to be operated and maintained to the satisfaction of an Inspector.
12. The Licensee shall post signs in the appropriate areas to identify the location of Monitoring Stations designated under Part I. All signs shall be located and maintained to the satisfaction of an Inspector
13. The Licensee shall ensure a copy of this Licence is maintained at the site of operations at all times. Any communication with respect to this Licence shall be made in writing to the attention of:

**(i) Manager of Licensing:**

Nunavut Water Board  
P.O. Box 119  
Gjoa Haven, NU X0B 1J0  
Telephone: (867) 360-6338  
Fax: (867) 360-6369

**(ii) Inspector Contact:**

Water Resources Officer, INAC  
Nunavut District, Nunavut Region  
P.O. Box 100  
Iqaluit, NU X0A 0H0  
Telephone: (867) 975-4295  
Fax: (867) 979-6445

14. The Licensee shall submit one paper copy and one electronic copy of all reports, studies, and plans to the Board. Reports or studies submitted to the Board by the Licensee shall include a detailed executive summary in Inuktitut.
15. The Licensee is responsible to ensure that any documents or correspondence submitted by the Licensee to the Board have been received and acknowledged by the Manager of Licensing.
16. This Licence is not assignable except as provided in Section 44 of the *Act*.
17. The expiry or cancellation of this Licence does not relieve the holder from any obligations imposed by the Licence as per Section 46 of the *Act*.

**PART C: CONDITIONS APPLYING TO WATER USE**

1. The Licensee shall obtain all water for domestic purposes from Camp Lake at Monitoring Station MRY-1, Philips Creek at Monitoring Station MRY-2 and Km 99 Lake at Monitoring Station MRY-3. Total water use for domestic purposes shall not exceed sixty (60) cubic metres per day. Water for the purposes of drilling and other associated uses, shall be obtained from sources adjacent to drill targets or as otherwise approved by the Board and is not to exceed four hundred and fifty five (455) cubic metres per day.
2. The Licensee shall maintain the Water Supply Facilities to the satisfaction of the Inspector.
3. Streams cannot be used as a water source unless authorized and approved by the Board.
4. If the Licensee requires water in sufficient volume that the source water body may be drawn down the Licensee shall, at least 30 days prior to commencement of use



of water, submit to the Board for approval the following: volume required, hydrological overview of the water body, details of impacts, and proposed mitigation measures.

5. The Licensee shall equip all water intake hoses with a screen of an appropriate mesh size to ensure that fish are not entrained and shall withdraw water at a rate such that fish do not become impinged on the screen.
6. The Licensee shall not remove any material from below the ordinary high water mark of any water body unless authorized.
7. The Licensee shall not cause erosion to the banks of any body of water and shall provide necessary controls to prevent such erosion.
8. Sediment and erosion control measures shall be implemented prior to and maintained during the operation to prevent entry of sediment into water.

#### **PART D: CONDITIONS APPLYING TO WASTE DISPOSAL**

1. The Licensee shall locate areas designated for waste disposal at a minimum distance of thirty (30) metres from the ordinary high water mark of any water body such that the quality, quantity or flow of water is not impaired, unless otherwise authorized by the Board.
2. Unless otherwise approved by the Board, the Licensee shall not practice open burning or on-site land filling of domestic waste.
3. The Licensee is authorized to dispose of all acceptable food waste, paper waste and untreated wood products in an incinerator.
4. The Licensee shall submit to the Board and the Inspector, thirty (30) days prior to the removal and transfer of waste, a declaration of authorization from the Hamlet of Pond Inlet, which clearly indicates the authorization to allow the deposit of solid waste by the Licensee, in the Hamlet's NWB licensed solid waste facility.
5. The Licensee shall backhaul and dispose of all hazardous wastes generated through the course of the operation in an approved waste disposal site.
6. The Licensee shall maintain records of all waste backhauled and records of confirmation of proper disposal of backhauled waste. These records shall be made available to an Inspector upon request.
7. The Licensee shall notify an Inspector at least ten (10) days prior to any discharge from the facilities in this Part.

8. All Minewater and surface drainage from the weathered ore stockpiles shall be directed to a discharge location that will allow monitoring.
9. All discharge from the two Bulk Sample open pits at Monitoring Stations MRY-5 and MRY-6 shall not exceed the following limits:

Parameter	Maximum Average Concentration (mg/L)	Maximum Concentration of any Grab Sample (mg/L)
Total Arsenic	0.5	1.00
Total Copper	0.30	0.60
Total Lead	0.20	0.40
Total Nickel	0.50	1.00
Total Zinc	0.50	1.00
Total Suspended Solids	15.0	50.0
Oil and Grease	no visible sheen	
The Waste discharged shall have a pH of between 6.0 and 9.5		

10. All Sewage discharged from the Waste Water Treatment Facility, at Monitoring Station MRY 4 and MRY-4a shall not exceed the following quality standards:

Parameter	Maximum Average Concentration
BOD <sub>5</sub>	30 mg/L
Total Suspended Solids	35 mg/L
Faecal Coliform	1,000 CFU/100 mL
Oil and Grease	no visible sheen
pH	between 6.0 and 9.5

11. All Sewage discharged from the Waste Water Treatment Facility, at Monitoring Station MRY 5 and MRY-5a shall not exceed the following quality standards:

Parameter	Maximum Average Concentration
BOD <sub>5</sub>	100 mg/L
Total Suspended Solids	120 mg/L
Faecal Coliform	10,000 CFU/100 mL
Oil and Grease	no visible sheen
pH	between 6.0 and 9.5

12. The licensee shall ensure that effluent discharged from monitoring station MRY-4 and MRY-4a, and MRY-5 and MRY-5a, are demonstrated to be non-acutely toxic through testing in accordance with Part I, Item 5.
13. The Licensee shall submit to the Board for approval, within thirty(30) days following the commissioning of the Waste Water Treatment Facilities, a Waste Water Management Plan which includes provision for Operation and Maintenance in accordance with the “*Guidelines for the Preparation of an Operation and Maintenance Manual for Sewage and Solid Waste Disposal Facilities in the Northwest Territories, 1996*”. The plan shall include options for treatment and disposal of sludge.
14. All PWSP discharges shall be released in such a manner to minimize surface erosion.
15. The Licensee shall ensure that PWSP’s are designed and bermed in such a way to ensure there is no seepage. A report on seepage shall be included as part of the Annual Report required under Part B, Item 5.
16. An inspection of the earthworks, geological regime, and the hydrological regime of the Project is to be carried out during the summer of 2008, by a Geotechnical Engineer. The Geotechnical Engineer’s report shall be submitted to the Board within sixty (60) days of the inspection, with a covering letter from the Licensee outlining an implementation plan to respond to the Engineer’s recommendations.
17. All effluent being discharged from the Bulk Fuel Storage Facilities at Monitoring Stations MRY – 6 and MRY – 7, shall meet the following effluent quality standards:

Parameter	Maximum Average Concentration (ug/L)
Benzene	370
Toluene	2
Ethylbenzene	90
Lead	1
Oil & Grease	15,000 and no visible sheen

18. The Licensee shall maintain all constructed facilities, including the fresh water intakes, Waste Water Treatment Facilities, Bulk Fuel Storage Facilities and the Polishing/Waste Stabilization Ponds (PWSP) to the satisfaction of an Inspector.
19. The Licensee shall submit to the Board for approval, at least ninety (90) days prior to construction of a proposed landfill, a final engineered design report, stamped by a professional Engineer registered in Nunavut. The report shall include, but not be

limited to, an Operation and Maintenance Plan for the proposed facility, prepared in accordance with the “*Guidelines for the Preparation of an Operation and Maintenance Manual for Sewage and Solid Waste Disposal Facilities in the Northwest Territories, 1996*”.

20. The Licensee shall submit to the Board for approval, within ninety (90) days of the issuance of the amendment, a Bulk Sampling Management Plan which addresses Acid Rock Drainage and Metal Leaching potential through the verification of Kinetic testing, Waste Rock Storage and Ore Storage management.
21. The Licensee may incinerate all food waste, paper waste and wood products in an incinerator capable of meeting the emission limits established under the Canada-wide Standards for Dioxins and Furans the Canada-wide Standards for Mercury Emissions. In such case, the Licensee shall insure that the waste is burned in a device that promotes efficient combustion and reduction of emissions, and shall as much as possible reduce the amount of waste to be incinerated. The use of appropriate waste incineration technology shall be combined with a comprehensive waste management strategy, especially waste segregation, that is designed to reduce and control the volumes of wastes produced, transported, and disposed of.
22. The Licensee shall backhaul and dispose of all hazardous wastes, waste oil and non-combustible waste generated through the course of the operation in an approved waste disposal site.
23. The Licensee shall contain all greywater, not directed to the WWTF, in a sump located at a distance of at least thirty (30) metres above the ordinary high water mark of any water body, at a site where direct flow into a water body is not possible and no additional impacts are created, unless otherwise approved by the Board.
24. The Licensee shall dispose of all Sewage to the Waste Water Treatment Facilities or as otherwise approved by the Board.
25. The Licensee shall contain all other toilet wastes with disposal by incineration, Latrines for this use shall be located at a distance of at least thirty (30) metres above the ordinary high water mark of any water body.
26. If the Board does not approve the Plan(s) referred to in this Part, the Licensee shall revise this Plan(s) and resubmit it to the Board for approval within two (2) months of receiving notification of the Board’s decision.
27. The Licensee shall implement the Plan(s) specified in this Part as and when approved by the Board.

**PART E:      CONDITIONS FOR CAMPS, ACCESS INFRASTRUCTURES  
AND OPERATIONS**

1. The Licensee shall not erect camps or store material on the surface of frozen streams or lakes including immediate banks except what is for immediate use. Camps shall be located such as to minimize impacts on surface drainage.
2. All activities shall be conducted in such a way as to minimize impacts on surface drainage and the Licensee shall immediately undertake any corrective measures in the event of any impacts on surface drainage.
3. Winter lake and stream crossings, including ice bridges, shall be constructed entirely of water, ice or snow. The Licensee should minimize disturbance by locating ice bridges at an area that requires the minimum approach grading and the shortest crossing route. Stream crossings shall be removed or the ice notched prior to spring break-up.
4. With respect to access road, pad construction or other earthworks, the deposition of debris or sediment into or onto any water body is prohibited. These materials shall be disposed a distance of at least thirty (30) metres from the ordinary high water mark in such a fashion that they do not enter the water. The Licensee shall ensure that any chemicals, fuel or wastes associated with the undertaking do not enter any water body.
5. The Licensee shall not cut any stream bank or remove any material from below the ordinary high water mark of any water body.
6. The Licensee shall not do anything that will cause erosion to the banks of any body of water and shall provide necessary controls to prevent such erosion.
7. Sediment and erosion control measures shall be implemented prior to and maintained during construction and operation to prevent entry of sediment into water.
8. The Licensee shall undertake appropriate corrective measures to mitigate impacts on surface drainage resulting from the Licensee's operations.
9. The Licensee shall limit any in-stream activity to low water periods. In-stream activity is prohibited during fish migration.
10. The Licensee shall locate stream crossings to minimize approach grades. Approaches shall be stabilized during construction and upon completion of the project, to control runoff, erosion and subsequent siltation to any water body.
11. Machinery is not permitted to travel up the stream bed and fording of any water body is to be kept to a minimum and limited to one area and a one-time event.

Equipment used should be well cleaned and free of oil and grease and maintained free of fluid leaks.

12. The Licensee shall ensure that pollutants from machinery fording the crossings do not enter water.
13. The Licensee shall ensure that all fill material used during construction is from an approved source and shall be free of contaminants.
14. To minimize impacts on surface drainage, the Licensee shall prepare all sites in such manner as to prevent rutting of the ground surface.
15. Equipment storage holding areas should be located on gravel, sand or other durable land, a distance of at least thirty (30) metres above the ordinary high water mark of any water body in order to minimize impacts on surface drainage and water quality.
16. The Licensee shall designate an area for the deposition of excavated and stockpiled materials that is at least thirty (30) metres above the ordinary high water mark of any water body.
17. The Licensee shall not utilize any equipment or vehicles in the course of this undertaking unless the ground surface is in a state capable of fully supporting the equipment or vehicles without rutting or gouging. Overland travel of equipment or vehicles shall cease if rutting occurs.

## **PART F: CONDITIONS APPLYING TO DRILLING OPERATIONS**

1. The Licensee shall not conduct any land based drilling within thirty (30) metres of the ordinary high water mark of any water body, unless otherwise approved by the Board.
2. The Licensee shall delineate through an appropriately scaled site map, include approximate GPS coordinates, and any mitigation measures in place to protect waters if filing a request to the Board to drill within thirty (30) metres of the ordinary high water mark of any water body.
3. The Licensee shall analyze the geochemical constituents of drill cores as follows:
  - i. That reflects actuality and is truly representative of the drilling program for all constituents that may impact waters as determined, and clearly qualified, by a Geochemist registered in Nunavut;
  - ii. All assumptions, and any limitation to each assumption, in determining a representative sampling population reflecting actuality and the geochemical testing methods employed;

- iii. Includes all raw data and an accompanying summary table of the geochemical analysis;
  - iv. Define clear conclusions on the results of the geochemical analysis; and
  - v. Present the geochemical analysis in the Annual Report as required by Part B, Item 2.
4. The Licensee shall ensure that all drill waste, including water, chips, muds and salts (CaCl<sub>2</sub>) in any quantity or concentration, from land-based drilling, shall be disposed of in a properly constructed sump or an appropriate natural depression located at a distance of at least thirty (30) metres from the ordinary high water mark of any adjacent water body, where direct flow into a water body is not possible and no additional impacts are created.
5. On-ice drilling has not been authorized within this Licence.
6. If artesian flow is encountered, drill holes shall be immediately sealed and permanently capped to prevent induced contamination of groundwater or salinization of surface waters. All artesian flows, including location (GPS), should be reported in the annual report to the NWB.
7. If the bottom of the permanently frozen ground, or permafrost, is broken through by the drill, the depth of the bottom of permafrost and location should be reported in the annual report to the Board for data management purposes.

#### **PART G: CONDITIONS APPLYING TO SPILL CONTINGENCY PLANNING**

1. The Licensee shall submit within ninety (90) days of issuance of the Licence, a revised Spill Contingency Plan that is specific to the scope of this Licence and prepared in accordance with the *Spill Contingency Planning and Reporting Regulations* developed under Section 34 of the *Environmental Protection Act*. The Licensee shall update the Plan by referring to, but not be limited by, the comments received by interested parties during the review of the application and include updated emergency contact information and updated material safety data sheets to be included as an Appendix.
2. If the Board does not approve the Plan referred to in this Part, the Licensee shall revise this Plan and resubmit it to the Board for approval within two (2) months of receiving notification of the Board's decision.
3. The Licensee shall implement the Plan specified in this Part as and when approved by the Board

4. The Licensee shall annually review the Plan referred to in this Part and if needed, modify it to reflect changes in operation and/or technology. The Plan and/or any revisions shall be submitted with the Annual Report.
5. The Licensee shall provide a report, to be approved by the Board, within ninety (90) days of issuance of the licence, appropriately qualified by an Engineer registered in Nunavut, which clearly details that the requirements of the CCME guidance document “*Aboveground Storage Tank Systems for Petroleum and Allied Petroleum Products (2003)*” have been met by the Licensee.
6. The Licensee shall ensure that any chemicals, petroleum products or wastes associated with the project do not enter water. All sumps and fuel caches shall be located at a distance of at least thirty (30) metres from the ordinary high water mark of any adjacent water body and inspected on a regular basis.
7. The Licensee shall ensure that any equipment maintenance and servicing be conducted only in designated areas and shall implement special procedures (such as the use of drip pans) to manage motor fluids and other waste and contain potential spills.
8. If during the term of this Licence, an unauthorized discharge of waste occurs, or if such a discharge is foreseeable, the Licensee shall:
  - i. Employ the Spill Contingency Plan;
  - ii. Report the spill immediately to the 24-Hour Spill Line at (867) 920-8130 and to the Inspector at (867) 975-4295; and
  - iii. For each spill occurrence, submit to the Inspector, no later than thirty (30) days after initially reporting the event, a detailed report that will include the amount and type of spilled product, the GPS location of the spill, and the measures taken to contain and clean up the spill site.

**PART H: CONDITIONS APPLYING TO ABANDONMENT AND RESTORATION**

1. The Licensee shall implement the “*Bulk Sample Program Abandonment and Restoration Plan*” dated June 2007, as and when approved by the Board.
2. If the Plan referred to in Part H, Item 1 is not approved, the Licensee shall make the necessary revisions and resubmit the Plan(s) within thirty (30) days following notification from the Board.



3. The Licensee shall review the Plan(s) referred to in this Part as required by changes in operation and/or technology and modify the Plan(s) accordingly. Revisions to the Plan(s) are to be submitted in the form of an Addendum to be included within the Annual Report unless directed otherwise by an Inspector.
4. The Licensee shall complete all restoration work prior to the expiry of this Licence.
5. The Licensee shall carry out progressive reclamation of any components of the project no longer required for the Licensee's operations.
6. When possible to do so, the Licensee shall backfill and restore, to the satisfaction of an Inspector, all sumps to the pre-existing natural contours of the land.
7. The Licensee shall remove from the site Infrastructures and site material, including but not limited to, all fuel caches, drums, barrels, buildings and contents, docks, water pumps and lines, all bulky wastes, material and equipment before the expiry of this License.
8. All roads and airstrip, if any, shall be re-graded to match natural contour to reduce erosion.
9. All culverts shall be removed and the drainage opened up to match the natural channel. Measures shall be implemented to minimize erosion and sedimentation.
10. In order to promote growth of vegetation and the needed microclimate for seed deposition, all disturbed surfaces shall be prepared by ripping, grading, or scarifying the surface to conform to the natural topography.
11. Areas that have been contaminated by hydrocarbons from normal fuel transfer procedures shall be reclaimed to the satisfaction of an Inspector. The use of reclaimed soils for the purpose of back fill or general site grading may be carried out only upon approval by an Inspector.
12. Drill holes and disturbed areas will be restored to natural conditions immediately upon completion of the drilling. The reclamation of drill holes must include the removal of any drill casing materials and the capping of holes with a permanent seal.
13. The Licensee may store drill core produced by the appurtenant undertaking in an appropriate manner and location at least thirty (30) metres above the ordinary high water mark of any adjacent water body, where any direct flow into a water body is not possible and no additional impacts are created, or as directed by an Inspector.
14. All disturbed areas shall be contoured and stabilized upon completion of work and restored to a pre-disturbed state.

**PART I: CONDITIONS APPLYING TO THE MONITORING PROGRAM**

1. The Licensee shall submit to the Board for approval within (90) days of issuance of the licence an Environmental Monitoring Plan which addresses but is not limited to the following:
  - i. Establishment of alternative treatment and disposal or discharge parameters for effluent discharged from the Bulk Fuel Storage Facilities(s);
  - ii. Monitoring requirements that may be required under the Bulk Sampling Management Plan; and
  - iii. Address recommendations of interested parties.
2. The Licensee shall, at a minimum, maintain Monitoring Stations at the following locations:

<b>Monitoring Program Station Number</b>	<b>Description</b>	<b>Status</b>
MRY – 1	Water supply for the Mary River Camp at Camp Lake	Active-Volume
MRY – 2	Summer water supply for the Milne Inlet Camp at Phillips Creek	Active-Volume
MRY – 3	Winter water supply for the Milne Inlet Camp at the Km 99 lake	Active-Volume
MRY – 4	Mary River Camp sewage discharge at the WWTF	Active
MRY – 4a	Mary River Camp sewage discharge from the PWSP	
MRY – 5	Milne Inlet Camp sewage discharge at the WWTF	Active
MRY – 5a	Milne Inlet Camp sewage discharge from the PWSP	
MRY – 6	Water collected within the Bulk Fuel Storage Facility at Mary River prior to release	
MRY – 7	Water collected within the Bulk Fuel Storage Facility at Milne Inlet prior to release	
MRY – 8	Minewater and surface drainage either pumped or released from the Hematite Open Pit	Active
MRY – 9	Minewater and surface drainage either pumped or released from the Magnetite Open Pit	Active
MRY – 10	Surface discharge from the weathered ore stockpile	
MRY – 12	Surface discharge from the lump ore and fine ore stockpiles at the processing area	
MRY – 13	Surface discharge from the lump ore and fine ore stockpiles at Milne Inlet	

3. The Licensee shall sample at Monitoring Program Stations MRY 4, and MRY 5 every four (4) weeks during discharge and at Monitoring Stations MRY-4a and MRY-5a once prior to discharge and every four (4) weeks thereafter. Samples shall be analyzed for the following parameters:
  - Biochemical Oxygen Demand - BOD
  - Total Suspended Solids
  - pH
  - Faecal Coliforms
  - Oil and Grease (visual)
4. The Licensee shall conduct toxicity testing on treated sewage effluent at the final discharge points at the Monitoring Station(s) MRY-4 and/or MRY – 4a; and MRY 5 and/or MRY – 5a, once annually during open water season in accordance with the following test procedures:
  - i. Acute lethality to Rainbow Trout, *Oncorhynchus mykiss* (as per Environment Canada’s Environmental Protection Series Biological Test Method EPS/1/RM/13); and
  - ii. Acute lethality to *Daphnia magna* (as per Environment Canada’s Environmental Protection Series Biological Test Method EPS/1/RM/14).
5. The Licensee shall sample at Monitoring Program Stations MRY -6 and MRY - 7 monthly during removal of water from the facilities as required by Part D, Item 20.
6. The Monitoring Program and compliance dates specified in the Licence may be modified at the discretion of the Chief Administrative Officer.
7. The Licensee shall measure and record, in cubic metres, the daily quantities of water utilized for camp, drilling and other purposes.
8. An Inspector may impose additional monitoring requirements.
9. The Licensee shall submit a Quality Assurance/Quality Control Plan, prepared in accordance with the INAC document “Quality Assurance (QA) and Quality Control (QC) Guidelines for use by Class “B” Licensees in Collecting Representative Water Samples in the Field, 1996” to an Analyst for approval within ninety (90) days of the issuance of the licence (amendment). The plan shall include analysis of field blanks and certified reference material, and replicate sampling in order to assess accuracy, precision and field contamination.
10. If the Board does not approve the Plan referred to in this Part, the Licensee shall revise this Plan and resubmit it to the Board for approval within two (2) months of receiving notification of the Board’s decision.

11. The Licensee shall implement the Plan specified in this Part as and when approved by the Board.
12. The Licensee shall annually review the approved Quality Assurance/Quality Control plan and modify it as necessary. Proposed modifications shall be submitted to an Analyst for approval.
13. The approved Quality Assurance/Quality Control Plan shall be submitted to the Board for review and implemented as approved by an Analyst.
14. All sampling, sample preservation and analyses shall be conducted in accordance with methods prescribed in the current edition of *Standard Methods for the Examination of Water and Wastewater*, or by such other methods approved by the Board.
15. All analyses shall be performed in a laboratory accredited according to ISO/IEC Standard 17025. The accreditation shall be current and in good standing.
16. The Licensee shall measure and record the following:
  - i. the quantities, in cubic metres, of domestic waste, sewage, and hazardous waste hauled off-site for disposal;
  - ii. the location and name of the disposal facility for each waste type noted above; and
  - iii. the date that each was hauled off-site for disposal, for each occasion that these are removed from the site.
17. The Licensee shall provide the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) of all locations where sources of water are utilized for all purposes. The Licensee shall report these co-ordinates to the Inspector prior to utilizing waters.
18. The Licensee shall determine the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) of all locations of temporary and permanent storage areas where wastes associated with camp, drilling and Infrastructure operations are deposited. The Licensee shall report these co-ordinates to the Inspector prior to depositing wastes.
19. A Monitoring Program summary report shall be submitted to the Board for review within thirty (30) days following the month being reported. This summary shall include, at a minimum, all the monitoring requirement under this Part.

20. The Licensee shall include in the Annual Report required under Part B, Item 5 all data and information required under this Part.

**PART J: CONDITIONS APPLYING TO CONSTRUCTION AND MODIFICATIONS**

1. The Licensee may, without written consent from the Board, carry out Modifications to the Water Supply Facilities and Waste Disposal Facilities provided that such Modifications are consistent with the terms of this License and the following requirements are met:
  - i. The Licensee has notified the Board in writing of such proposed Modifications at least sixty (60) days prior to beginning the Modifications;
  - ii. Such Modifications do not place the Licensee in contravention of the License or the *Act*;
  - iii. The Board has not, during the sixty (60) days following notification of the proposed Modifications, informed the Licensee that review of the proposal will require more than sixty (60) days; and
  - iv. The Board has not rejected the proposed Modifications.
2. Modifications for which all of the conditions referred to in Part F, Item 1 have not been met can be carried out only with written approval from the Board.
3. The Licensee shall provide as-built plans and drawings of any construction and Modifications referred to in this License within ninety (90) days of completion of the construction or Modification. These plans and drawings shall be signed and sealed by an Engineer.
4. The Licensee shall provide as-built plans and drawings, stamped and sealed by a professional Engineer registered in Nunavut, within ninety (90) days of completion of all construction works, including but not limited to the following:
  - i. Road alignment and all stream crossing installations;
  - ii. Waste Water Treatment Facilities;
  - iii. Bulk Storage of fuel Facilities; and
  - iv. Landfill.