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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

Licence No.: 1BR-MDR1721

July 31, 2017

Jackie Barker, Environmental Officer
Transport Canada
344 Edmonton Street,
Winnipeg, Manitoba, R3B 2L4
Email: Jackie.Barker@tc.gc.ca

RE: NWB Licence No. 1BR-MDR1721

Dear Ms. Barker:

Please find attached Licence No. **1BR-MDR1721** issued to Transport Canada (TC) by the Nunavut Water Board (NWB or 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 (Nunavut Agreement)*. The terms and conditions of the attached Licence related to the use of Waters and the deposit of Waste 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 deposit must cease, or the Licensee may be in contravention of the *Nunavut Agreement* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*. 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 (3) months** prior to the Licence expiry date. It should be noted that in accordance with s. 75 (1) (a) of the *Nunavut Planning and Project Assessment Act* (NuPPAA), the Board is not allowed to issue a permit or authorization for a project proposal that has not been submitted to the Nunavut Planning Commission (NPC) for the NPC's relevant determination.

If the Licensee contemplates or requires an amendment to this Licence, the NWB may decide, in the public's interest, to hold a public hearing. The Licensee should submit any application 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 **sixty (60) 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 are

acknowledged by the Manager of Licensing.

The NWB strongly recommends that the Licensee consult the comments received from interested persons on issues identified. This information is attached for your consideration.¹

Sincerely,

Thomas Kabloona
Nunavut Water Board
Chair

TK/ce/rd

Enclosure: Licence No. **1BR-MDR1721**
Comments – **INAC – Water Resources Division, ECCC, and DFO**

Cc: Qikiqtani Distribution List

¹ Indigenous and Northern Affairs Canada (INAC) – Water Resources Division, June 7, 2017; Environment and Climate Change Canada (ECCC), June 5, 2017; Department of Fisheries and Oceans Canada, June 12, 2017.

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A. INTRODUCTION

On March 3, 2017, Transport Canada (TC) applied for a new Type 'B' Water Licence to support the water use and waste deposit activities associated with the remediation of the Iqaluit Former Vehicle Dump and Community Landfill (the site). The site is situated approximately 1.7 km southwest of the City of Iqaluit, very close to the Sylvia Grinnell River (Iqaluit). This Transport Canada initiative is entitled the "Former Iqaluit Metal Dump Remediation Project", and it is expected to start during the summer of 2017 and continue through to December 2020 for the decommission of the site, including: removal of debris and metal materials, removal of contaminated soil and sediments, temporary diversion of a drainage feature in order to remove contaminated sediments, drainage feature improvement, swale design to divert precipitation and meltwater away from decommissioned landfill slopes and the collection of surface water samples around the site to monitor the remediation efforts.

The former dump and landfill site occupies a total area of approximately 7.25 ha (72,500 m²), which includes the up-gradient debris area and the lower area bordering the Sylvia Grinnell River. The site is within the Frobisher Bay Watershed (No. 53), adjacent to the Sylvia Grinnell Territorial Park protected area and is within the administrative boundaries of the City of Iqaluit.

Transport Canada has proposed the use less than 50 m³ of water per day with the projected total use for surface water sampling activities not to exceed 0.1 m³. The submitted application also mentions that there will be no diversion of existing water courses; however, new water runoff from precipitation / snow melt will be diverted away from impacted materials. Moreover, it is expected that the diverted water will be treated and returned to all sources. Finally, all waste remediated from the site will be disposed of at licensed/approved off-site facilities.

The undertaking will not involve any camp activities as all work and all sampling events will be carried out by workers that are accommodated at existing facilities located within the City of Iqaluit.

B. PROCEDURAL HISTORY

On March 3, 2017, the NWB received an Application for a new Licence from Transport Canada (TC), to support the remediation of the Iqaluit Former Vehicle Dump and Community Landfill (the site). The Application comprised of the following documents, some of which were provided under separate submissions following receipt of the initial Application:

- Application for Water Licence, submitted March 3, 2017;
- General Water Licence Application, submitted March 3, 2017;
- Cover Letter for NWB Application, submitted March 3, 2017;
- Spill Contingency Plan, Iqaluit Metal Dump, dated March 3, 2017;
- Summary of Potential Environmental and Resource Impacts, submitted March 3, 2017;
- Executive Summary, in English and Inuktitut, dated submitted 3, 2017;
- Figures 1-Main Components Remediation Program, submitted March 3, 2017;
- Figures 2-Main Components Remediation Program, submitted March 3, 2017;
- Remedial Action Plan, Former Metal Dump and Community Landfill, dated 27 January 2017 by Arcadis Canada Ltd., submitted on March 3, 2017;
- Letter by TC to City of Iqaluit, dated November 1, 2016;
- Letter by TC to GN EDandT, dated November 1, 2016;
- Letter by TC to GN Environment, dated November 1, 2016;
- Letter by TC to NTI, dated November 1, 2016;
- Letter by TC to QIA, dated November 1, 2016;
- Email response by City of Iqaluit to TC, dated November 21, 2016;
- Letter by GN EDandT to TC, dated November 28, 2016;
- Letter from NIRB to TC requesting Additional Information, dated February 27, 2017;
- Letter by TC to NIRB responding to the request for Additional Information, dated April 25, 2017;
- Letter by TC to NWB responding to questions submitted by INAC, dated June 26, 2017.

Prior to the NWB's receipt of the Application, the NPC and the NIRB had both issued their respective determinations for the project. On February 20, 2017, the NPC determined that the project proposal (for NPC File No. 148456) was outside the area of an applicable regional land use plan and that the project required screening by the Nunavut Impact Review Board (NIRB). On May 16, 2017, the NIRB issued a screening decision report for the project (NIRB File No. 17UN025). On May 17, 2017, following a preliminary internal technical review, the NWB distributed a notice of the Application to interested parties. All parties were invited to make representations to the NWB by June 7, 2017. Environment and Climate Change Canada (ECCC), provided a submission on June 5, 2017 in which it indicated that it had no comments at the time. Submissions were received on June 7, 2017 from INAC's –Water Resources Division and the Kitikmeot Inuit Association (KIA). INAC-Water Resources Division stated that it supported the Licence term of 3.5 years requested by the Licensee. INAC-WRD also provided the following recommendations:

- 1) The Applicant use best practices for erosion control when constructing the temporary access road, particularly if the road ends up having to cross any drainage features;
- 2) The Applicant must ensure that the appropriate approvals are obtained from any receiving facilities for waste associated with this project;

- 3) The Applicant must ensure that they are using proper containment when drying sediments and ensure that they use secondary containment when storing contaminated soil and sediments prior to disposal;
- 4) Lastly, INAC-WRD recommended that the NWB confirm if any water use will be required for dust suppression on the temporary access road to be constructed by the Licensee. On June 26, 2017, Transport Canada submitted a letter to the NWB to confirm that dust suppression measures will be implemented on an “as required basis”, however the water used will be trucked in to the site from municipal sources in Iqaluit.

The Department of Fisheries and Oceans Canada (DFO), submitted comments on June 12, 2017. In its submission, the DFO stated that the proposal has been identified as a project where a Fisheries Act authorization is not required given that serious harm to fish can be avoided by following standard measures. The DFO also highlighted in its submission the website where the Licensee could obtain the DFO’s recommended standard measures.

Based upon the results of the detailed assessment of the Application, including consideration of any potential impacts to freshwater that the overall project might have on the area, the Board has approved the Application and has therefore approved the issuance of Water Licence No. 1BR-MDR1721.

C. GENERAL CONSIDERATIONS

Term of Licence

In accordance with the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* s. 45, the NWB may issue a Licence for a term not exceeding twenty-five years. The Licensee requested a three and a half (3.5) year Licence (for a Licence expiry by December 2020), for the remediation of the Iqaluit Former Vehicle Dump and Community Landfill (the site). In its review of the Application, on June 7, 2017, INAC-WRD supported the request for a three and a half (3.5) year Licence term. In determining an appropriate term of a Water Licence, the Board considers a number of factors including the comments received from other parties, and the risk to Water resources posed by the undertaking. The Board has decided to issue the Licence for a four-year term. This will not only allow the Licensee the time to decommission the site and submit all the required close-out reports for the undertaking, but will also allow INAC-WRD the opportunity to inspect the site and provide a site close-out inspection report.

Annual Report

As a requirement of section 14(1) of the *Nunavut Waters Regulations* and similar to the terms and conditions generally included in all licences issued by the Board, the NWB has included under Part B, Item 1 of this Licence, requirements for the Licensee to submit to the Board for review, prior to the 31st of March, annually, a report detailing Water use and/or Waste deposit activities for the undertaking for the preceding year. The submission of Annual Reports ensure that the NWB has on file accurate updates of all Water use and/or Waste deposit activities related to an undertaking for any particular year preceding and including the date on which the report is filed.

The Board provides public access to the information submitted in licensees’ annual reports through its ftp site as well as upon request from interested parties.

The NWB has included on its website a standardized form for annual reporting that licensees can use to submit annual reporting information, supplemented by other project-specific, relevant details. A copy of the NWB's generic Annual Report Form can be obtained from the NWB upon request or electronically from the NWB's FTP site using the following link:

<ftp://ftp.nwb-oen.ca/other%20documents/>

Water Use

As requested by the Applicant, the Board has authorized the maximum water usage of fifty (50) cubic metre per day to allow for water diversion, remediation activities, water sampling and related activities. The Licensee indicated in the Application that all Water necessary for dust suppression, of the temporary access road to be constructed, will be sourced from the city of Iqaluit's municipal supply.

Deposit of Waste

The Licensee intends to remediate the site and will remove off-site an estimated 1040 m³ of hazardous waste and consolidate in the on-site landfill an estimate 3629 m³ of bulk items/scrap metal. The Licensee has indicated that contaminated soil and sediments will be removed from the site and will be either deposited at an on-site landfill, or the Iqaluit land treatment unit, or packaged for shipment to an appropriate facility. The Licensee has also indicated that sediments may need to be dried prior to disposal. In its June 7, 2017 comments, INAC-WRD recommended that the Licensee ensure that the appropriate approvals are obtained from all receiving facilities prior to waste disposal at those facilities. Moreover, INAC-WRD recommended that the Licensee not only ensure that proper containment is used when drying sediments, but that a secondary containment be used when storing contaminated soil and sediments prior to disposal. On June 26, 2017 the Licensee acknowledged INAC-WRD's recommendations and agreed to abide by them.

The Undertaking

The Licensee (Transport Canada) plans to implement the following remediation activities:

1. Removal of on-site debris;
2. Targeted removal of contaminant impacted soils and sediments;
3. Engineered decommissioning of on-site landfill to achieve a proper slope;
4. Build road access;
5. Implement mitigation measures for fugitive air emissions, sediment release control, and surface water control;
6. Perform final capping, contouring, and revegetation of the site; and
7. Monitor the performance of the remedial works in terms of physical stability, erosion, revegetation and attenuation of contaminants in soils, sediments, and surface water.

Spill Contingency Planning

With issuance of this Licence, the Board has now approved the submitted plan entitled "*Spill Contingency Plan Former Iqaluit Vehicle Dump and Community Landfill Remediation Project, Iqaluit Airport, Iqaluit, Nunavut*" Prepared by Transport Canada on March 2011, Revised in April 2017 by Arcadis Canada Inc.

Abandonment and Reclamation

The United States Air Force (USAF) used the Iqaluit Former Vehicle Dump and Community Landfill (the site) from between 1955 to 1963 as a metal dump for vehicles, truck bodies, barrels and scrap metal. In the 1960's, the town of Iqaluit briefly used the site as a municipal waste dump site. The site was abandoned in the 1970's and a toping consisting of granular material was placed on top and on the face of the landfill site to cover much of the debris.

With issuance of this Licence, the Board has now approved the submitted plan entitled "*Remedial Action Plan, Former Metal Dump and Community Landfill*", dated 27th January 2017, submitted to the NWB on March 31, 2017, drafted by Arcadis Canada Ltd. In this plan, the Licensee has detailed all remediation activities in sections 8.2. The Licensee shall conduct its remediation activities in accordance with this plan.

Under the terms and conditions in the Licence applying to abandonment and restoration, the Licensee is required to remove any remaining equipment associated with the project upon completion. Additional conditions for restoration have been included under Part J of this Water Licence.

Monitoring

A Monitoring Plan and Program is required during the remediation activities, Part K, Item 1. Once the landfill is decommissioned, a passive surface water system will be constructed, and the debris/impacted soil/sediments will be removed, it is expected that through natural attenuation, the areas will recover. Post-remediation monitoring will be required to verify this natural attenuation process, so as to ensure that the onsite conditions are improving as planned. A monitoring of at least three (3) years has been proposed following the remediation work. Should the on-site monitoring activities require water use (for water diversion, remediation activities, water sampling and related activities) or further waste deposit, past the expiry date of this License, the Licensee has been reminded to apply for a renewal License from the NWB.

Conditions related to monitoring can be found under Part K of the Licence.

D. DECISION

LICENCE NUMBER: 1BR-MDR1721

This is the decision of the Nunavut Water Board (NWB or Board) with respect to an application dated March 3, 2017, for the Water Licence made by:

TRANSPORT CANADA

to allow for the use of Water and deposit of Waste during remediation of the Iqaluit Former Vehicle Dump and Community Landfill (the site). The site is situated approximately 1.7 km southwest of the City of Iqaluit, close to the Sylvia Grinnell River, in the Qikiqtani Region of Nunavut, generally at the following geographical coordinates:

Project Extent:	Max Latitude: 63° 44' 18.6" N	Max Longitude: 68° 33' 8.6" W
	Min Latitude: 63° 44' 1.7" N	Min Longitude: 68° 32' 58.5" W

DECISION

After receiving confirmation that the Application was for a location that falls outside of an area with an approved Land Use Plan¹ as determined by the NPC (NPC file No. 148456) and that a review is not required in accordance with paragraph 92(10)(a) of the *Nunavut Planning and Project Assessment Act* (NuPPAA)² as determined by the Nunavut Impact Review Board (NIRB), the NWB has 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* (Act) and Article 13 of the *Nunavut Agreement*, public notice of the Application was given and interested persons were invited to make representations to the NWB.

After reviewing the submission of the Licensee and considering the representations made by an intervening party, 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 *Nunavut Agreement* and of the *Act*, waived the requirement to hold a public hearing, and determined that:

**Issuing Licence No. 1BR-MDR1721 subject to the terms and conditions contained therein.
(Motion #: 2017-B1-019)**

Signed this 31st day of July 2017 at Gjoa Haven, NU.

Thomas Kabloona
Nunavut Water Board
Chair
TK/ce/rd

¹ Nunavut Planning Commission (NPC) Determination, February 20, 2017.

² Nunavut Impact Review Board (NIRB), May 16, 2017.



NUNAVUT WATER BOARD WATER LICENCE

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

TRANSPORT CANADA

(Licensee)

344 EDMONTON STREET, WINNIPEG, MANITOBA R3B 2L4

(Mailing Address)

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

Licence Number/Type:	1BR-MDR1721 / TYPE "B"
Water Management Area:	FROBISHER BAY WATERSHED (# 53)
Project / Location:	FORMER IQALUIT METAL DUMP REMEDIATION PROJECT / QIKIQTANI REGION, NUNAVUT
Classification:	INDUSTRIAL UNDERTAKING
Purpose:	DIRECT USE OF WATER AND DEPOSIT OF WASTE
Quantity of Water use not to Exceed:	FIFTY (50) CUBIC METRE PER DAY
Date of Licence Issuance:	JULY 31, 2017
Expiry of Licence:	JULY 30, 2021

This Licence issued and recorded at Gjoa Haven, Nunavut, includes and is subject to the annexed conditions.

**Thomas Kabloona,
Nunavut Water Board
Chair**

PART A. SCOPE, DEFINITIONS AND ENFORCEMENT

1. Scope

This Licence allows for the use of Water and the deposit of Waste associated with the remediation of a former landfill and dump site, for an Industrial undertaking as per Schedule 1 of the *Regulations*, at the Former Iqaluit Metal Dump Remediation Project. The site is situated approximately 1.7 km southwest of the City of Iqaluit, close to the Sylvia Grinnell River (Iqaluit), in the Qikiqtani Region of Nunavut.

- a. 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
- b. 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

In this Licence: 1BR-MDR1721

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

“**Addendum**” means the supplemental text that is added to a full plan or report usually included at the end of the document and is not intended to require a full resubmission of the revised report;

“**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;

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

“**Application**” means the application package for Licence No. 1BR-MDR1721, received by the Board March 3, 2017;

“**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 Agreement* and

the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*;

“**Effluent**” means treated or untreated liquid waste material that is discharged into the environment from a structure such as a settling pond, landfarm or a treatment plant;

“**Engineer**” means a professional engineer registered to practice in Nunavut in accordance with the *Consolidation of Engineers and Geoscientists Act S. Nu 2008, c.2* and the *Engineering and Geoscience Professions Act S.N.W.T. 2006, c.16 Amended by S.N.W.T. 2009, c.12*;

“**Final Discharge Point**” means the point at which the Licensee no longer exerts care and/or control over the quality and/or quantity of the effluent from a treatment process;

“**Grab Sample**” means a single water or wastewater sample taken at a time and place representative of the total discharge;

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

“**Hazardous Waste**” means waste classified as “hazardous” by Nunavut Territorial or Federal Legislation, or as “dangerous goods” under the *Transportation of Dangerous Goods Act* at the time of clean-up;

“**High Water Mark**” means the usual or average level to which a body of Water rises at its highest point and remains for sufficient time so as to change the characteristics of the land;

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

“**Landfarm Facility**” means an engineered facility and associated appurtenance designed and constructed for the treatment and storage of hydrocarbon impacted soil and/or Water, as described in the Remedial Action Plan, Former Metal Dump and Community Landfill, dated 27 January 2017 by Arcadis Canada Ltd., submitted on March 3, 2017;

“**Licensee**” means the individual or organization to which 1BR-MDR1721 Type “B” is issued or assigned;

“**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;

“**Monitoring Program**” means the monitoring program established to collect data on surface Water and groundwater quality to assess impacts to the environment of the appurtenant undertaking;

“**Non-Hazardous Waste Landfill**” comprises the landfill constructed for the disposal of non-hazardous Waste derived from the site cleanup, as described in plan entitled

“Remedial Action Plan, Former Metal Dump and Community Landfill”, dated 27th January 2017.

“**Nunavut Agreement**” 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;

“**Regulations**” means the *Nunavut Waters Regulations SOR/2013-69 18th April, 2013*;

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

“**Solid Waste**” means non-hazardous waste and Type-A soil;

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

“**Sump**” A structure or depression that collects, controls, and filters liquid Waste before it is released to the environment. This structure should be designed to prevent erosion while allowing percolation of liquid 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;

“**Water**” or “**Waters**” means waters as defined in section 4 of the *Act*;

3. Enforcement

- a. 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*;
- b. All inspection and enforcement services regarding this Licence will be provided by Inspectors appointed under the *Act*; and
- c. 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 Licensee shall file an Annual Report on the Appurtenant Undertaking with the Board no later than the 31st of March of the year following the calendar year being reported, containing the following information:
 - a. A summary report of Water use activities;
 - b. A summary of any construction work, modification and major maintenance work (including as-built diagrams) carried out;
 - c. Tabular summaries for all data and information generated under the Monitoring Program;
 - d. A review and analysis of data collected during the Monitoring Program and a brief description of any future studies planned by the Licensee;
 - e. The results of any review conducted and any recommendations regarding any changes to the Monitoring Program and/or remediation requirements;
 - f. A summary of any remediation work undertaken during the year and an outline of any work anticipated for the next year;
 - g. A list of unauthorized discharges and summary of follow-up actions taken;
 - h. Any updates or revisions for manuals and plans as required by changes in operation and/or technology;
 - i. If applicable, a description of any trenches and sumps excavated, including the following: GPS coordinates, dimensions, depth below active layer, and secondary containment features;
 - j. A brief summary of work done to address any concerns of deficiencies listed in the inspection reports and/or compliance reports prepared by an Inspector;
 - k. An executive summary in English and Inuktitut of all plans, reports, or studies conducted under this Licence; and
 - l. Any other details on Water use or deposit of Waste requested by the Board by 1st of November of the year being reported.
2. 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.
3. The Licensee shall comply with the Monitoring Program described in this Licence, and any amendments to the Monitoring Program as may be made from time to time, pursuant to the conditions of this Licence.
4. The Monitoring Program and compliance dates specified in the Licence may be modified at the discretion of the Board.
5. The Licensee shall, for all Plans submitted under this Licence, include a proposed timetable for implementation. Plans submitted, cannot be undertaken without subsequent written Board approval and direction. The Board may alter or modify a Plan if necessary

to achieve the legislative objectives and will notify the Licensee in writing of acceptance, rejection or alteration of the Plan.

6. The Licensee shall, for all Plans submitted under this Licence, implement the Plan as approved by the Board in writing.
7. The Licensee shall review the Plans referred to in this Licence, as required by changes in operation and/or technology, and modify the Plan accordingly. Revisions to the Plans shall be submitted in the form of an Addendum to be included with the Annual Report.
8. Every Plan to be carried out pursuant to the terms and conditions of this Licence shall become a part of this Licence, and any additional terms and conditions imposed upon approval of a Plan by the Board become part of this Licence. All terms and conditions of the Licence should be contemplated in the development of a Plan where appropriate.
9. The Licensee shall post signs in the appropriate areas to identify the stations of the Monitoring Program associated with the undertaking. All signage postings shall be in the Official Languages of Nunavut
10. 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:
 - (a) **Manager of Licensing:**
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0
Telephone: (867) 360-6338
Fax: (867) 360-6369
Email: licensing@nwb-oen.ca
 - (b) **Inspector Contact:**
Manager of Field Operations, INAC
Nunavut District, Nunavut Region
P.O. Box 100
Iqaluit, NU X0A 0H0
Telephone: (867) 975-4295
Fax: (867) 979-6445
11. 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.
12. The Licensee shall ensure that any document(s) or correspondence submitted by the Licensee to the NWB is received and acknowledged by the Manager of Licensing.
13. This Licence is assignable as provided for in section 44 of the *Act*.

PART C. CONDITIONS APPLYING TO WATER USE

1. The Licensee is authorized to use up to fifty (50) cubic metre of Water per day for water diversion, remediation activities, water sampling and related activities.
2. The Licensee shall not remove any material from below the ordinary High Water Mark of any Water body.
3. The Licensee is required to determine and record the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) of all locations where water is used and include this information in the submitted Annual Reports.
4. The Licensee is recommended to install flow meters or other such devices, or implement suitable methods for measuring volumes of water. These measures may include providing water volume calculations based on water level.
5. The Licensee is required to measure and record in cubic metres, the daily quantities of Water used.
6. The Licensee should equip all water intake hoses with a screen of an appropriate mesh size to ensure that there is no entrainment of fish and to withdraw water at a rate such that fish do not become impinged on the screen.
7. The Licensee should not remove any material from below the ordinary high water mark of any water body unless authorized.
8. Sediment and erosion control measures should be implemented prior to and maintained during the undertaking to prevent entry of sediment into water.
9. The Licensee shall implement measures to prevent the deposition of dust and/or sediment into Water arising from contractor activities or any on-site vehicular traffic.
10. Equipment used should be well cleaned and free of oil and grease and maintained free of fluid leaks. The Licensee shall ensure that pollutants from machinery used during construction do not enter Water.

PART D. CONDITIONS APPLYING TO WASTE DISPOSAL

1. The Licensee shall locate areas designated for Waste disposal including all pump-out Water at a minimum distance of thirty-one (31) 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 approved by the Board in writing.
2. The Licensee shall not practice on-site landfilling of domestic waste, unless otherwise approved by the Board in writing.

3. The Licensee shall backhaul and dispose of all Waste not covered in Part D, Item 1, at a licenced waste disposal facility.
4. The Licensee shall provide to the Board, for review, documented authorization from all communities in Nunavut receiving wastes from the Site prior to any backhauling and disposal of Wastes to those communities.
5. The Licensee shall maintain records of all Waste backhauled and records of confirmation of proper disposal of backhauled Waste and include this information within the Annual Report in Part B, Item 1.
6. The Licensee may consolidate and treat Petroleum Hydrocarbon Contaminated Soil in a bermed area or as otherwise approved by the Board in writing.
7. The Licensee shall dispose of contaminated or hydrocarbon impacted soil at the proposed Landfarm Facility if constructed or backhaul such waste to an approved facility for disposal or manage it in a manner that is otherwise approved by the Board in writing.
8. The Licensee shall provide notice to an Inspector at least ten (10) days prior to initiating any decant or discharge of any waste waters. The notice shall include the estimated discharge volume, effluent quality, and the proposed location for the discharge.
9. Effluent discharged from any leachate/runoff should not exceed the following discharge limits:

Parameter	Maximum Concentration of any Grab Sample (µg/L)
pH	6 to 9 (pH units)
Oil and Grease	5000
Arsenic (total)	100
Cadmium (total)	10
Chromium (total)	100
Cobalt (total)	50
Copper (total)	200
Lead (total)	50
Mercury (total)	0.6
Nickel (total)	200
Zinc (total)	500
Benzene	370
Toluene	2
Ethylbenzene	90

10. If the Effluent referred to in Part D, Items 9 exceeds the respective discharge limits, it will be considered Hazardous Waste requiring further treatment or disposal off-site at an approved facility or as otherwise approved by the Board in writing.

11. The Licensee shall provide for the proper storage, treatment, and/or disposal at an approved facility, of any Hazardous Waste generated by the Project, unless otherwise approved by the Board in writing.
12. The Licensee shall dispose of any material coated with Polychlorinated Biphenyl (PCB) amended paints, hazardous materials and soils containing contaminants in excess of *Canadian Environmental Protection Act* (CEPA) Guidelines, with the exception of asbestos, which must be disposed off site at an approved treatment facility.

PART E. CONDITIONS APPLYING TO THE UNDERTAKING

1. The Licensee shall conduct all activities 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.
2. The Licensee shall not cause erosion to the banks of any body of Water and shall provide necessary controls to prevent such erosion.
3. The Licensee shall minimize disturbance to terrain, permafrost and drainage during movement of contractor's equipment and personnel around the site during post closure monitoring activities.
4. All sites affected by water diversion, remediation activities, water sampling and related activities shall be stabilized, landscaped as necessary, and suitable erosion control measures implemented to minimize sediment deposition into watercourses located on or adjacent to the site.
5. The Licensee shall implement proper handling, storage and transportation procedures for hazardous materials to prevent entry to any Water body.

PART F. CONDITIONS FOR CAMPS, ACCESS INFRASTRUCTURES AND OPERATIONS

1. Establishment and use of a camp is not authorized under this Licence
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, and shall be removed prior to spring break-up.
4. With respect to access road, pad construction or other earthworks, the deposition of debris or sediment into any water body is prohibited. These materials shall be disposed of above the ordinary high water mark in such a fashion that they do not enter the water.

PART G. CONDITIONS APPLYING TO DRILLING OPERATIONS

1. The Licensee is authorized to conduct drilling for the purposes of installing monitoring wells and other instrumentation.
2. The Licensee shall restore all drill holes and disturbed areas to natural conditions immediately upon completion of the projects. The restoration of drill holes must include the removal of any drill casing materials and the capping of holes with a permanent seal.

PART H. CONDITIONS APPLYING TO CONSTRUCTION AND MODIFICATIONS

1. The Licensee shall submit to the Board for acceptance for-construction drawings for all water and/or waste management facilities authorized under the Licence at least thirty (30) prior to commencing construction.
2. The Licensee may, without written consent from the Board, carry out Modifications to the Water and Waste management structures or Facilities provided that such Modifications are consistent with the terms of this Licence and the following requirements are met:
 - a. the Licensee has notified the Board in writing of such proposed Modifications at least sixty (60) days prior to beginning the Modifications;
 - b. such Modifications do not place the Licensee in contravention of the Licence or the *Act*;
 - c. such Modifications are consistent with the NIRB Screening Decision;
 - d. 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
 - e. the Board has not rejected the proposed Modifications.
3. Modifications for which all of the conditions referred to in Part H, Item 1 have not been met can be carried out only with written approval from the Board.
4. The Licensee shall provide as-built plans and drawings of structures or facilities constructed under Part H, Item 1 or of the Modifications referred to in this Licence within ninety (90) days of completion. These plans and drawings shall be stamped by an Engineer.

PART I. CONDITIONS APPLYING TO SPILL CONTINGENCY PLANNING

1. The Board has approved with issuance of this Licence the plan entitled “Spill Contingency Plan Former Iqaluit Vehicle Dump and Community Landfill Remediation Project, Iqaluit Airport, Iqaluit, Nunavut” Revised April 26 2017 and submitted as additional information for the Application.

2. The Licensee shall prevent any chemicals, petroleum products or wastes associated with the project from entering water. All sumps and fuel caches shall be located at a distance of at least thirty one (31) metres from the ordinary High Water Mark of any adjacent water body and inspected on a regular basis.
3. The Licensee shall conduct any equipment maintenance and servicing 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.
4. If during the term of this Licence, an unauthorized discharge of waste occurs, or if such a discharge is foreseeable, the Licensee shall:
 - a. Employ the approved Spill Contingency Plan;
 - b. Report the spill immediately to the 24-Hour Spill Line at (867) 920-8130 and to the Inspector at (867) 975-4295; and
 - c. 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 J. CONDITIONS APPLYING TO CLOSURE AND RECLAMATION OR TEMPORARY CLOSING

1. The Board has approved with issuance of this Licence the plan entitled “Remedial Action Plan, Former Metal Dump and Community Landfill”, dated 27 January 2017 and submitted as additional information for the Application.
2. All roads shall be re-graded to match natural contours to reduce erosion.
3. 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.
4. The Licensee shall remove from the site, all infrastructure and site materials, including all fuel caches, drums, barrels, material and equipment prior to the expiry of this Licence.
5. Areas that have been contaminated by hydrocarbons from normal fuel transfer procedures shall be reclaimed to meet objectives as outlined in the Government of Nunavut’s *Environmental Guideline for Contaminated Site Remediation*, 2009. The use of reclaimed soils for the purpose of back fill or general site grading may be carried out only upon consultation and approval by the Government of Nunavut, Department of Environment and an Inspector.
6. All disturbed areas shall be contoured and stabilized upon completion of work and restored to a pre-disturbed state.

PART K. CONDITIONS APPLYING TO THE MONITORING PROGRAM

1. Prior to commencing any onsite remediation work, the Licensee shall submit and obtain Board approval for a *detailed monitoring plan*. The *detailed monitoring plan* should:
 - a. detail the on-going site Monitoring Program;
 - b. identify Monitoring Program Stations, including the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude);
 - c. address if there will be any effluent discharge, what the discharge criteria will be, and what effluent monitoring measures may be implemented;
 - d. summarize data collected thus far during onsite remediation activities and;
 - e. must include an assessment of how the facilities are expected to perform in the long-term as well as appropriate recommendations.
2. 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 in writing.
3. All analyses shall be performed in a laboratory accredited according to ISO/IEC Standard 17025. The accreditation shall be current and in good standing.
4. The Licensee shall ensure that tabular summaries for all data and information generated under the Monitoring Program, as well as an analysis of data collected during the Monitoring Program, are provided to the Board in the Annual Report, in accordance with Part B, Item 1.
5. The Licensee shall determine 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.
6. The Licensee shall submit a Quality Assurance/Quality Control Plan (QA/QC) for the Long Term Monitoring of the site. The QA/QC plan should reflect the operation and/or technology being utilized. Any revisions to the QA/QC Plan shall be acceptable to an accredited laboratory and include, when being submitted to the Board, a cover letter from an accredited laboratory confirming acceptance of the Plan for analyses to be performed under the Licence.
7. Any revisions to the QA/QC Plan and the *detailed monitoring Plan* are to be submitted in the form of an addenda to be included with the Annual Report, unless directed otherwise by the Board.
8. The Licensee must conduct any additional monitoring requested by the Inspector.