



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-MTH1722**
Comments – INAC, ECCC, DFO

Cc: Kitikmeot Distribution List

¹ Indigenous and Northern Affairs Canada (INAC) – Water Resources Division March 28, 2017; Environment and Climate Change Canada (ECCC), March 28, 2017; Department of Fisheries and Oceans Canada, March 10, 2017.

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A. Introduction

The department of Indigenous and Northern Affairs Canada (INAC) has applied, and received funding approval under the Federal Contaminated Sites Action Plan (FCSAP), for the investigation and cleanup of the former CAM-C (Matheson Point) DEW line site. CAM-C is an abandoned Intermediate Distant Early Warning Line Site which was originally constructed in 1957 and closed/abandoned in 1963. CAM-C is situated on crown land, approximately 30 km northeast of the community of Gjoa Haven, Nunavut. INAC conducted investigation studies on the site between 2011 and 2013 and confirmed that the main contaminants of concern identified at the site include chemicals such as: polychlorinated, biphenyls (PCBs), arsenic, cadmium, cobalt, copper, lead, nickel, zinc, asbestos, and petroleum hydrocarbons (PHCs). The beach area, identified as being a suitable barge landing location, currently has approximately 400 stacked drums (each drum estimated to be 205 litre sized drums).

INAC held a community consultation meeting on January 23, 2014 in Gjoa Haven. The objective of the meeting was raise awareness and to solicit community input for the project. On January 28, 2017 INAC submitted a “Type B” water licence application package to the Board and in the package included a “CAM-C, Matheson Point Remedial Action Plan” dated March 5, 2014, drafted by AECOM.

The submitted Remedial Action Plan details the cleanup activities to be undertaken from 2017 through to 2019. The Remedial Action Plan also states that no new landfills will be constructed on site, rather combustible solid waste will be incinerated on-site (using an approved incinerator unit), all other recovered non-hazardous and hazardous wastes will be packaged and shipped off-site for disposal at appropriate, licensed facilities. A landfarm treatment area has been proposed for the treatment of 570 m³ of type “B” petroleum hydrocarbon contaminated soils.

The cleanup of the CAM-C (Matheson Point) has been planned for the fiscal years (FY) 2017/18 and 2018/2019. INAC intends to mobilize to site by barge in late summer/fall of 2017. Subsequently, INAC intends to setup a 30-person capacity camp. The proposed camp will be located at either location LF-1 or LF-2, which is situated at a safe distance from the site contaminants yet close enough to the proposed water source (Fresh Water Lake). INAC intends to run the camps from June to September/October. The camp is expected to be shut down and winterised until the start of the new season.

INAC intends to carryout the above-mentioned work under the Type “B” Water Licence No. 1BR-MTH1722. INAC has requested a five-year licence term (to expire in 2022). INAC has expressed no intention to carryout any long-term monitoring of the site because they do not plan to leave any facilities on this site following the completion of site cleanup activities.

B. Previous Licences Issued to the Project

This is a new Type “B” water licence for this project.

C. Procedural History

The application and supporting documents (the Application), submitted by Indigenous and Northern Affairs Canada (INAC) on January 28, 2017, included the following documents:

- CAM-C, Matheson Point, Nunavut, Phase III Environmental Impact Assessment Report

- Final, dated February 21, 2014, drafted by AECOM;
- CAM-C, Matheson Point Remedial Action Plan, dated March 5, 2014, drafted by AECOM
- Environmental Impact Assessment CAM-C, Matheson Point, Nunavut Intermediate DEW Line Site, dated March 24, 2014, drafted by AECOM;
- Fuel and Hazardous Material Spill Contingency Plan, dated October 2016, drafted by PWGSC;
- CAM-C, Matheson Point Intermediate Dew Line Site (Figure 1 – 8);
- Gibson Peninsula Map;
- NPC Conformity, dated October 6, 2016;
- CAM-C NIRB Determination, dated January 6, 2017;
- Cover Letter;
- Water Licence Application Form;
- NWB Exploration/Remote Camp Supplementary Questionnaire;
- Non-Technical Project Proposal Description (in English and in Inuktitut);
- Current Project Schedule

Following receipt and an internal preliminary review, the NWB distributed the Application on February 28, 2017, for a thirty (30) day public review and comment period with the deadline for submissions set for March 28, 2017.

The Department of Fisheries and Oceans Canada (DFO), submitted comments on March 10, 2017. The following was identified:

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. Moreover, the DFO also highlighted in its submission 1) the website where the Licensee could obtain the DFO's recommended standard measures, 2) some specific guidelines pertaining to the due diligence required by the applicant in order to prohibit the disturbance of marine mammals.

On March 28, 2017, the NWB received a submission from Indigenous and Northern Affairs Canada (INAC), which identified the following:

- 1) The need for more information related to the camp greywater discharge pit. More specifically, the location of the pit is important in order to ensure no permafrost degradation occurs.
- 2) The need for INAC CSP to submit for review/approval by the NWB, prior to mobilizing to site, a "Wastewater Treatment Facility Design, Operation and Maintenance Plan" which will contain full details on the handling of the camp greywater, camp sewage and wastewater generated from site activities.
- 3) The need for INAC CSP to submit for review/approval by the NWB, a "Landfarm Operations and Management Plan".
- 4) The requirement for INAC CSP to submit for review by the NWB, prior to mobilizing to site, a "Fuel and Hazardous Material Spill Contingency Plan Update".
- 5) The need for INAC CSP to submit for review/approval by the NWB, ninety (90) days prior to the completion of onsite remediation activities, a Post-Closure Monitoring Plan.
- 6) The need for INAC CSP to submit for review/approval by the NWB, prior to the first seasonal demobilization activities by on-site workers (during the completion of onsite remediation activities), an Abandonment and Reclamation Plan. The plan should provide

sufficient detail on how infrastructure and assets will be managed at the end of each field season, during an interim closure phase, and following the completion of site remediation activities.

- 7) Finally, INAC WRD confirmed their support for the issuance of a five-year water licence.

On April 18, 2017 the applicant (INAC-CSP) responded to INAC-WRD's submitted comments as follows:

- 1) INAC CSP agrees with INAC WRD concerns pertaining to camp greywater discharge pits, permafrost degradation, discharge of waste waters and the need for a proper discharge monitoring plan. INAC CSP has confirmed that prior to mobilizing onsite, the project contractor will develop and submit for NWB review/approval, the "Wastewater Treatment Facility Design, Operation and Maintenance Plan" which will contain full details on the handling of the camp greywater, camp sewage and wastewater generated from site activities.
- 2) Prior to mobilizing onsite, INAC CSP confirmed that the project contractor will develop and submit for NWB review/approval, an Operation and Management Plan for the landfarm facility currently proposed for the CAM-C site.
- 3) Ninety (90) days prior to commencing any remediation work, INAC CSP confirmed that if required, the project contractor will develop and submit for NWB review/approval, a "Type B PHC Contaminated Soil Treatment Plan" for the CAM-C site. The plan will lay out the guides for operation and maintenance of the landfarm treatment facility at the site.
- 4) Prior to mobilizing onsite, INAC CSP confirmed that the project contractor will develop and submit for NWB review/approval, a revised Fuel and Hazardous Material Spill Contingency Plan. The revised Plan will include the updated INAC Manager of Field Operations contact info, as suggested by INAC WRD in their submitted comments on March 28, 2017.
- 5) INAC CSP is adopting a strategy whereby no new landfills will be built, in other words their intention is to remove all wastes from the site and to take it to a licensed facility. Class A (high risk potential) legacy landfills that are met onsite will be dug up and sent to an approved/licensed facility for treatment. Class C (low risk potential) legacy landfills met at the site are considered stable and will therefore be left onsite. INAC CSP has expressed that a Post-Closure Monitoring Plan will be developed, along with specific monitoring recommendations (if required), after the completion of remediation activities.
- 6) Prior to mobilizing onsite, INAC CSP intends to develop and submit for NWB review/approval, an Abandonment and Reclamation Plan that details the contractor's plans to decommission the camp, the water facilities, the sewage facilities, and other facilities that are built in the course of implementing the remediation plan of the site.
- 7) Toward the end of the five (5) year term, INAC CSP expects to be able to advise NWB if an extension is required, to the current licence 1BR-MTH1722.

On March 28, 2017 submission was received by Environment and Climate Change Canada (ECCC) as follows:

- 1) Concerns about wastewater discharge locations and highlighting the importance of Sewage Effluent Monitoring.
- 2) Concerns pertaining to the discharge of waste waters into the tundra. Requesting the location of tundra discharge(s) and highlighting the importance of having mitigation measures to prevent erosion and sedimentation for these locations.

On April 18, 2017 the applicant responded to ECCC's comments and confirmed that:

- 1) The project's contractor will prepare the a "Wastewater Treatment Facility Design, Operation and Maintenance Plan" which will contain full details on the handling of the camp greywater, camp sewage and wastewater generated from site activities. A copy of the plan will be submitted to NWB, prior to mobilization to the site.
- 2) The project contractor will provide an "Erosion, Sediment and Drainage Control Plan" 45 days prior to start of remediation activities.

With respect to pre-licensing consideration, the NWB received the Nunavut Planning Commission's (NPC) October 6, 2016 correspondence indicating that the project proposal requires screening by the Nunavut Impact Review Board (NIRB) because it does not belong to a class of exempt works or activities set out in Schedule 12-1 of the *Nunavut Agreement* and from section 235 of the *Nunavut Planning and Project Assessment Act*.

The above-mentioned application and supporting information can be accessed through the NWB's public registry using the following link:

<ftp://ftp.nwb-oen.ca/registry/1%20INDUSTRIAL/1B/1BR%20-%20Remediation/1BR-MTH1722%20INAC/>

D. Application Scope

The scope of the above-mentioned application, as requested by the Licensee, is for a term of five (5) years to allow for camp operations, and the construction and operation of a landfarm and two sewage facilities in support of the clean-up activities of the CAM-C Matheson Point Remediation Project.

E General Consideration

The following sections provide an overview of the rationale for the Board's inclusion of certain terms and conditions in the renewed Licence.

i. Term of the Licence

In accordance with s. 45 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, the NWB may issue a licence for a term not exceeding twenty-five (25) years. The Applicant requested a five (5) year term for the licence to allow for the continuation of a Long-term Landfill Monitoring Program. The Board has decided to allow for a five (5) – year term for the licence, which is consistent with the term granted for similar types of undertaking.

ii. Annual Report

In accordance with s. 14 (1) of the *Nunavut Waters Regulations*, requirements have been included under Part B, Item 1 of the Licence for submission, annually, of a report detailing the activities carried out under the Project for the year preceding one in which the report is filed. Annual reporting information is kept in the NWB's public registry as well as made available to interested persons upon request.

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 relevant details that may be specific to a project.

Copies of the NWB's generic Annual Reporting form can be obtained from its FTP site using the following Link:

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

iii. Water Use

The Licensee requested the use of 13 cubic metres of water per day in its Application, for camp and construction purposes. The Board has authorized the use of 13 cubic metres of water per day for camp, construction and related purposes, under Part C, Item 1 of the Licence.

iv. Waste Deposit

The Board has approved, under Part D, Item 1 of the Licence, the Plan entitled "CAM-C, Matheson Point Remedial Action Plan, dated March 5, 2014, drafted by AECOM". In this plan the Licensee stated that combustible solid waste will be incinerated on-site (using an approved incinerator unit), all other recovered non-hazardous and hazardous wastes will be packaged and shipped off-site for disposal at an appropriate licensed facility.

Moreover, the Board has required that prior to commencing onsite remediation work, that the Licensee submit and obtain approval for a "Wastewater Treatment Facility Design, Operation and Maintenance Plan". The plan must contain full details on the handling of the camp greywater, camp sewage and wastewater generated from site activities.

Prior to utilizing any onsite landfarm or landfill, the Board has required that the Licensee submit to the Board, and obtain approval of an "Operation and Management Plan for the proposed landfarm/landfill facility".

Ninety (90) days prior to commencing any remediation work that involves "Type B PHC Contaminated Soil", the Board has required that the Licensee submit for NWB review/approval, a "Type B PHC Contaminated Soil Treatment Plan" for the CAM-C site.

All other terms and conditions pertaining to waste disposal have been included under Part D of the Licence to ensure that the licensee manage and track all waste generated by the project.

F. Construction and Modification

In support of reclamation activities at site, two sewage lagoons and one landfarm will be constructed. The Licensee shall submit for review at least ninety (90) days prior to construction of the landfarm and the sewage lagoons stamped and signed issued for construction (IFC) drawings of the facilities.

G. Spill Contingency Planning

The Board has approved, under Part I, Item 1 of the Licence, the Plan entitled "Fuel and Hazardous Material Spill Contingency Plan, dated October 2016, drafted by PWGSC". The Board considers this plan to be a Preliminary Fuel and Hazardous materials spill contingency plan. Prior to commencing onsite activities, the applicant must submit and obtain an approval from the NWB for the updated Fuel and Hazardous material spill contingency plan. Terms and conditions for the Spill Contingency Planning have been included under Part I of the Licence.

H. Closure and Reclamation

The Licensee is required to submit a Closure and Reclamation Plan to the NWB, prior to commencing any onsite remediation work. This is the recommendation that INAC CSP included in their April 18, 2017 response letter to stakeholder comments. The Board believes this is appropriate because it will ensure that a plan is in place prior to the planned seasonal abandonment of site, as identified by INAC WRD in their comments submitted on March 28, 2017. Moreover, this License has included terms that require the applicant to fully restore the site upon completion of the Project in accordance with conditions under Part J of the Licence.

I. Monitoring

The Licensee is required to submit a site Monitoring Plan to the NWB, for Board review and approval, prior to the expiry of this License. Terms and conditions pertaining to on-site monitoring have been included under Part K.

J. QA/QC Plan

Under Part K, Item 4 of the Licence, the Licensee is required to submit to the Board for review and acceptance a Quality Assurance/Quality Control Plan along with a letter from an accredited laboratory confirming the plan's acceptability.

DECISION

LICENCE NUMBER: 1BR-MTH1722

This is the decision of the Nunavut Water Board (NWB) with respect to an Application dated January 28 2017 for the Water Licence made by:

INDIGENOUS AND NORTHERN AFFAIRS CANADA

to allow for the use of water and the deposit of waste, camp activities, the construction and operation of a landfarm and two sewage lagoons during activities pertaining to the remediation activities for the former CAM-C (Matheson Point) Distant Early Warning (DEW) Line site, located approximately 30 kilometres east of Gjoa Haven, Kitikmeot Region of Nunavut, generally at the following geographical coordinates:

Latitude: 68° 49' 8" N Longitude: 95° 17' 20" W

DECISION

After having been satisfied that the Application is for a location that falls outside of an area with an approved Land Use Plan and that the project proposal is exempt from screening and section 235 of the *Nunavut Planning and Project Assessment Act* as determined by the Nunavut Planning Commission (NPC)¹, 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* (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 Applicant and considering the representation made by the interested 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:

Licence No. 1BR-MTH1722 be issued subject to the terms and conditions contained therein (Motion #: 2017-B1-023).

Signed this 15th day of August 2017 at Gjoa Haven, NU.

Thomas Kabloona
Nunavut Water Board, Chair

TK/ce/rd

¹ Nunavut Planning Commission (NPC) Determination, October 6, 2016.



**NUNAVUT WATER BOARD
WATER LICENCE**

Licence No. 1BR-MTH1722

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

INDIGENOUS AND NORTHERN AFFAIRS CANADA (INAC)

(Licensee)

P.O. BOX 2200, IQALUIT, NU X0A 0H

(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-MTH1722 / TYPE "B"**

Water Management Area: **KING WILLIAM ISLAND WATERSHED (# 41)**

Project / Location: **FORMER CAM-C MATHESON POINT, DEW LINE SITE
REMEDICATION PROJECT / KITIKMEOT REGION,
NUNAVUT**

Classification: **INDUSTRIAL UNDERTAKING**

Purpose: **USE OF WATER AND DEPOSIT OF WASTE**

Quantity of Water use not
to Exceed: **THIRTEEN (13) CUBIC METRE PER DAY**

Date of Licence Issuance: **AUGUST 15, 2017**

Expiry of Licence: **AUGUST 14, 2022**

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 for the continued implementation of a remediation project for an Industrial undertaking classified as per Schedule 1 of the *Regulations* at the former CAM-C (Matheson Point) Distant Early Warning (DEW) Line site, located approximately 30 kilometres northeast of the of the Hamlet of Gjoa Haven, in the Kitikmeot 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-MTH1722

“**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*;

“**Applicant**” means the Licensee

“**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;

“**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 (ref. Department of Fisheries and Oceans Canada, Operational Statement: Mineral Exploration Activities);

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

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

“**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;

“**Non-Hazardous Waste Landfill**” is considered a Class C (low risk potential) which is stable and is not a source of recontamination according to INAC’s AMSRP, as described in INAC CSP’s submitted response letter dated April 18, 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, Type A soil, Tier I soil and Tier II 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 or Sumps” 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;

“Tier I Soil” means soil containing contaminant concentrations within the types and ranges defined as DCC Tier I in Appendix E of the NTI Agreement, including its preamble and schedules, and any amendments to that agreement made pursuant to it;

“Tier II Soil” means soil containing contaminant concentrations within the types and ranges defined as DCC Tier II in Appendix E of the NTI Agreement including its preamble and schedules, and any amendments to that agreement made pursuant to it;

“Type A Soil” means soil contaminated with hydrocarbons in which the primary petroleum product present in the soil as determined by laboratory analysis consists of lubricating oil and grease;

“Type B Soil” means soil contaminated with hydrocarbons in which the primary petroleum product present in the soil as determined by laboratory analysis consists of fuel oil and/or diesel fuel and /or gasoline

“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. The monthly and annual quantities (in cubic metres) of fresh water obtained from all sources;
 - b. The monthly and annual quantities (in cubic metres) of treated sewage discharged and landfarm effluent discharge;
 - c. Tabular summaries for all data and information generated under the “Monitoring Program” as per Part K including all monitoring data from plans approved by the Board for this Licence;
 - d. A summary of all waste backhauled for disposal at approved facilities;
 - e. A summary of any construction work, modification and major maintenance work carried out at a site water/wastewater related facility;
 - b. A review and analysis of data collected during the “Monitoring Program” and a brief description of any future studies planned by the Licensee;
 - c. A summary of any abandonment and restoration work undertaken during the year and an outline of any work anticipated for the next year;
 - d. The results of any review conducted and any recommendations regarding any changes to the Monitoring Plan and/or remediation requirements;
 - e. A summary of any studies requested by the Board that relate to waste disposal, water use or reclamation, and a brief description of any future studies planned;
 - f. A list of unauthorized discharges and summary of follow-up actions taken;
 - g. If applicable, a description of any trenches and sumps excavated, including but not limited to the following: GPS coordinates, dimensions, depth below active layer, and secondary containment features;
 - h. A public consultation/participation report describing consultation with local organizations and the residents of the nearby communities;
 - i. A brief summary of work done to address concerns or deficiencies listed in the inspection reports and/or compliance reports prepared by an Inspector;
 - j. An executive summary in English and Inuktitut of all plans, reports, or studies conducted under this Licence; and
 - k. Any other details on water use or waste deposit requested by the Board by the 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, 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.

4. The Licensee shall, for all Plans submitted under this Licence, implement the Plan as approved by the Board in writing.
5. 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 shall become part of this Licence. All terms and conditions of the Licence should be contemplated in the development of a Plan where appropriate.
6. 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.
7. The Licensee shall, within thirty (30) days following issuance of the Licence, post signs in the appropriate areas identifying the locations of the Waste Management facilities, and the "Monitoring Program Stations". All postings shall be in the Official Languages of Nunavut.
8. 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

9. 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.
10. 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.

11. 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 thirteen (13) cubic metre of water *per* day for camp, construction and related purposes from Freshwater Lake. Total quantity of water for all purposes under this Licence shall not exceed thirteen (13) cubic metre per year.
2. Streams cannot be used as a water source unless authorized and approved by the Board in writing.
3. The Licensee shall not remove any material from below the ordinary High Water Mark of any water body unless authorized.
4. The Licensee shall implement sediment and erosion control measures to prevent the deposition of dust and/or sediment into the Water Supply Lakes arising from contractor activities or on-site vehicular travel.

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 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.
4. The Board has approved with the issuance of this Licence the plan entitled “CAM-C, Matheson Point Remedial Action Plan, dated March 5, 2014, drafted by AECOM”. The applicant is required to undertake on site waste disposal activities in accordance with the approved plan.
5. The Licensee shall submit for the Board’s approval, prior to commencing onsite remediation work, a “Wastewater Treatment Facility Design, Operation and Maintenance Plan”. The plan must contain full details on the handling of the camp greywater, camp sewage and wastewater generated from site activities.
6. The Licensee shall submit for the Board’s approval, prior construction of any onsite landfarm or landfill, a Facility Design, Operation and Management Plan for the proposed facility.

7. The Licensee shall submit to the Board for approval, ninety (90) days prior to commencing any remediation work that involves “Type B PHC Contaminated Soil”, a “Type B PHC Contaminated Soil Treatment Plan” for the CAM-C site.
8. The Licensee shall submit to the Board for approval, forty-five days (45) prior to start of remediation activities, an “Erosion, Sediment and Drainage Control Plan”
9. Licensee shall backhaul waste generated under this Licence to an approved waste disposal facility.
10. 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 under Part B, Item 1. These records shall be made available to an Inspector upon request.
11. All pump out water from water sampling activities shall be pumped to an area approved by an Inspector.
12. The Licensee shall not transport any hazardous wastes prior to registering with the Government of Nunavut as a waste generator and utilizing the prescribed manifests.
13. The Licensee shall provide to the Board for, review, documented authorization from all communities in Nunavut receiving wastes from the CAM-C (Matheson Point) site prior to the backhauling and disposal of any wastes to those communities.
14. The Licensee may consolidate and treat Petroleum Hydrocarbon Contaminated Soil in a bermed area or as otherwise approved by the Board in writing.
15. 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.
16. 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.
17. 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

18. If the Effluent referred to in Part D, Items 17 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.
19. 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.
20. 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, if any constructed facilities designed to contain waste were to fail, repair such facilities immediately to the satisfaction of an Inspector.
2. 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.
3. The Licensee shall not cause erosion to the banks of any body of water and shall provide necessary controls to prevent such erosion.
4. All sites affected by sampling 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, to the satisfaction of an Inspector

PART F: CONDITIONS FOR CAMPS, ACCESS INFRASTRUCTURE AND OPERATIONS

1. 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.

2. 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.
3. 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 drill for the purpose of installing monitoring wells and related instrumentation.

PART H: CONDITIONS APPLYING TO CONSTRUCTION AND MODIFICATIONS

1. The Licensee may, without written consent from the Board, carry out Modifications to any Water and Waste management facilities or infrastructure authorized under the licence 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. 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
 - d. the Board has not rejected the proposed Modifications.
2. 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.
3. The Licensee shall provide all issued for construction drawing sets to the Board.
4. The Licensee shall provide as-built plans and drawings of the Modifications referred to in this Licence within ninety (90) days of completion of the Modification. These plans and drawings shall be signed and stamped by an Engineer

PART I: CONDITIONS APPLYING TO SPILL CONTINGENCY PLANNING

1. The Board has approved the Plan entitled “Fuel and Hazardous Material Spill Contingency Plan” (FHM Spill Contingency Plan) , dated October 2016, drafted by PWGSC . Prior to commencing onsite activities, the Licensee shall submit for the approval of the NWB, a revised FHM Spill Contingency plan that include updated site

specific information as indicated in Section 2.2 of the FHM Spill Congingency Plan, including a revision to the contact details of the INAC Manager of Field Opearations.

2. All sumps and fuel caches shall be located a minimum of thirty-one (31) metres above the ordinary High Water Mark of any adjacent water body and inspected on a regular basis. The Licensee is encouraged to use some form of secondary containment on fuel and chemical storage facilities associated with this undertaking.
3. 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 fluids, 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
 - c. the INAC Water Resources Inspector at (867) 975-4295; and
 - d. Submit to the INAC Water Resources Inspector on each occurrence, a detailed report including the GPS location, no later than thirty (30) days after initially reporting the event.
5. The Licensee shall, in addition to Part I, Item 4, regardless of the quantity of releases of harmful substances, report to the NWT/NU Spill Line if the release is near or into a Water body.

PART J: CONDITIONS APPLYING TO CLOSURE AND RECLAMATION

1. The Licensee shall submit to the Board for approval, prior to commencing any onsite reclamation activities, an Abandonment and Reclamation Plan. The plan must outline seasonal site closure steps that are required for seasonal abandonment of the camp and other facilities on site, as specified in the applicant's submission package.
2. The Licensee shall complete all restoration work pertaining to the undertaking prior to the expiry of this Licence.
3. The Licensee shall backfill and restore, all temporary containment sumps, to the pre-existing natural contours of the land.
4. All disturbed areas shall be stabilized and re-vegetated as required, upon completion of work, and restored as practically as possible to a pre-disturbed state.

PART K: CONDITIONS APPLYING TO THE MONITORING PROGRAM

1. Monitoring Program Stations shall be 1) raw water intake, 2) Final Discharge Point from

the Sewage Disposal Facilities Lagoon 1, 3) Final Discharge Point from the Sewage Disposal Facilities Lagoon 2, and 4) Final Discharge Point from the Landfarm Facility

2. The Licensee shall submit, once remedial activities have been complete, a detailed post-construction monitoring plan with the Annual Report. The Report shall summarize data collected during onsite remediation activities and shall also address whether the site has performed as expected. The report must include an assessment of how the facilities are expected to perform in the long-term as well as appropriate recommendations.
3. The Licensee shall ensure that 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.
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 submit to the Board for review and acceptance a QA/QC Plan within sixty (60) days following issuance of the Licence. The Plan shall include a letter from an analyst conforming that the plan is acceptable for achieving the monitoring proposed.
5. Appropriate documentation demonstrating Analyst approval of the Plan shall be submitted to the Board upon receipt.
6. An Inspector may impose additional monitoring requirements.
7. The Licensee shall include in the Annual Report, required under Part B, Item 1, all monitoring results and information required by this Part.