



ᓄᓇᓂᓪ ᐃᓕᓕᓂᓪᓃᓪ ᑲᓂᓕᓂᓪᓃᓪ
NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

File No.: **1BR-RLF1520**

August 19, 2015

Kelly Hunnie
Transport Canada
Environmental Affairs – Programs
3rd Floor – 344 Edmonton Street
Winnipeg, Manitoba R3C 0P6

Email: Kelly.Hunnie@tc.gc.ca

RE: NWB Licence No. 1BR-RLF1520

Dear Kelly Hunnie:

Please find attached Licence No. **1BR-RLF1520** issued to Transport Canada by the Nunavut Water Board (NWB) 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 Land Claims Agreement or NLCA)*. The terms and conditions of the attached Licence related to the use of Water 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 disposal must cease, or the Licensee may be in contravention of the *Nunavut Land Claims 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.

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 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 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/sj/ri

Enclosure: Licence No. **1BR-RLF1520**
Comments – AANDC, EC

Cc: Qikiqtani Distribution List

¹ Aboriginal Affairs and Northern Development Canada (AANDC), May 4, 2012; and Environment Canada (EC) May 4, 2012.

TABLE OF CONTENTS

I. BACKGROUND ii

II. PROCEDURAL HISTORY ii

III. GENERAL CONSIDERATIONS iii

WATER LICENCE 1

PART A: SCOPE, DEFINITIONS AND ENFORCEMENT 2

 1. **Scope**2

 2. **Definitions**2

 3. **Enforcement**4

PART B: GENERAL CONDITIONS 4

PART C: CONDITIONS APPLYING TO WATER USE 6

PART D: CONDITIONS APPLYING TO WASTE DISPOSAL 7

PART E: CONDITIONS APPLYING OPERATIONS 8

PART F: CONDITIONS APPLYING TO DRILLING OPERATIONS 8

PART G: CONDITIONS APPLYING TO MODIFICATIONS 9

PART H: CONDITIONS APPLYING TO SPILL CONTINGENCY PLANNING 9

PART I: CONDITIONS APPLYING TO ABANDONMENT AND RESTORATION OR
TEMPORARY CLOSING..... 10

PART J: CONDITIONS APPLYING TO THE MONITORING PROGRAM..... 11

I. BACKGROUND

During demolition and remediation work carried out by Transport Canada in 2001/2002 at the former Fire Training Area (FTA) and Above-Ground Storage Tanks (ASTs) area at the Resolute Bay Airport, approximately 5,800 cubic metres of Petroleum Hydrocarbon Contaminated Soil (PHC) soil was excavated (5,500 m³ from the FTA and 300 m³ from the former ASTs area). To treat the PHC soil excavated, a lined Landfarm Facility, consisting of two (2) Land Treatment Units (LTU 1 and LTU 2), was constructed and commissioned.

Since commissioning of the Landfarm Facility, limited maintenance work were carried out at the project site in 2002/2003 and again in 2003/2004; however, no work was carried out during the period 2004 and now, due to constraints involving funding, human resources, and other factors.

To ensure that the Landfarm Facility is adequately maintained and eventually decommissioned, once treatment of the soil is completed in accordance with appropriate remediation objectives, Transport TC has applied to the NWB for a five (5) year Water Licence to operate and maintain the facility. Operations of the facility is expected to include but not be limited to adding nutrients to increase the rate of soil remediation, tilling to enhance soil aeration and reduce compaction, and sampling in accordance with relevant guidelines. Once confirmatory sampling conducted and the results determine that the soil is treated to meet appropriate remediation objectives, it is anticipated that the facility will be decommissioned.

II. PROCEDURAL HISTORY

The original application and supporting information (Application) for the Resolute Bay Land Farm Maintenance / Decommissioning Project (the Project) was received by NWB on January 13, 2012. Following an internal preliminary review, the NWB distributed Application, consisting of the following documents, on April 4, 2012 for a thirty-day public comment and review period with the deadline for submission set for May 4, 2012:

- General Water Licence Application;
- Project Summary – Inuktitut;
- Landfarm Site Plan;
- Spill Contingency Plan;
- Stand Alone Abandonment and Restoration Plan;
- Operations and Maintenance Plan; and
- Final Report, WERI and ENG-TECH.

Prior to the deadline for comments, submissions were received from Aboriginal Affairs and Northern Development Canada (AANDC) and Environment Canada (EC). With respect to pre-licensing issues, the NWB received the Nunavut Planning Commission's (NPC) Conformity Determination for the file on May 17, 2012 and the Nunavut Impact Review Board's (NIRB) Screening Decision for the file on June 22, 2012.

However, before the NWB could complete the Licensing Process for the Application, Transport Canada requested that processing of the Application be suspended indefinitely due to funding-related issues. On December 31, 2014, Transport Canada requested that the NWB recommence

processing of the Application as TC is expecting to receive funding for the Project during the 2015 period.

III. GENERAL CONSIDERATIONS

Scope of Undertaking

The scope of this licence is limited to the operations, maintenance and eventual decommissioning of an existing Landfarm Facility. It should be noted that since construction of the facility was not considered and licenced by the Board, the Licensee should not interpret this Licence as a post-construction authorization for an existing facility as the Board does not concur with such practices nor has the ability to grant such licences.

Term of the Licence

In accordance with section 45 of the Act, the NWB may issue a licence for a term not exceeding twenty-five (25) years. In determining the appropriate term of a licence, the Board takes into consideration several factors including the Licensee's past performance, compliance record, ability to comply with the terms and conditions of a licence, interveners' comments and more. The Licensee requested a five-year term for the licence, which the NWB as well as AANDC believe is appropriate for the type of undertaking being considered. The Board has therefore granted the five (5) year term requested for the Licence, 2015 – 2020.

Annual Report

Similar to conditions generally included in licences issued by the Board, the NWB has included under, Part B, Item 1, in the licence, the requirement for the Licensee to submit to the Board for review, prior to the 31st of March, annually, a report detailing the use of water and deposit of waste for the preceding year. The Board provides public access to the information submitted in annual reports by licensees through its ftp site as well as copies upon request from interested parties.

The NWB has included on its website a standardized form for reporting that licensees can use to submit Annual Reporting information, supplemented by other relevant information. Copies of the NWB's generic Annual Reporting form can be obtained from the NWB upon request or electronically by going to the NWB's FTP site and using the following link:

<ftp://nunavutwaterboard.org/ADMINISTRATION/Standardized%20Forms/>.

Water Use

The Applicant did not seek authorization to use water under the terms and conditions in the licence. However, the Board has authorized the use of five (5) cubic metres of water per year for sampling and related purposes, which are considered as active water use. Terms and Conditions related to water use are included under Part C, Item 1 in the Licence.

Deposit of Waste

No authorization was sought by the Applicant to dispose of solid waste and sewage as there is no camp facility associated with the Project and the project is located relatively close to the Hamlet of Resolute Bay. Accordingly, no terms and conditions have been included in the Licence authorizing the disposal of such wastes. Term and conditions, however, have been included in the Licence to allow for any leachate collected in a sump associated with the

Landfarm Facility to be released to receiving environment if it meets discharge criteria in the Licence. Further generally related to waste that may be generated and backhauled have been included in the Licence.

Management Plan

The following management plans were submitted by the Licensee as part of its Application submitted to the Board for consideration:

- a. *Resolute Bay Land Farm Treatment Facility, Spill Contingency Plan*, dated January 2012;
- b. *Stand Alone Abandonment and Restoration Plan, Resolute Bay Airport Land Farm, Nunavut*, dated January 2012; and
- c. *Resolute Bay, Land Farm Operation and Maintenance Plan*, dated January 2012.

The Board has reviewed the above-mentioned plans and approved them under the relevant sections in the Licence: Part H, Item 1, Part I, Item 1, and Part E, Item 1, respectively. The Licensee is required to submit an addendum to the Spill Contingency Plan, approved under Part H, Item 1, within its 2015 Annual Report for the Project.

G. Monitoring

The documents submitted in support of the Application included details related to the existing monitoring stations or those that will be established for the Project. To complement this information, the NWB has included under Part J, Item 12 in the Licence, requirements for the Licensee to submit to the Board for review and acceptance a Quality Control and Quality Assurance Plan within ninety (90) days following issuance of the Licence.

DECISION

LICENCE NUMBER: 1BR-RLF1520

This is the decision of the Nunavut Water Board (NWB) with respect to an Application dated January 13, 2012 for a Water Licence made by:

TRANSPORT CANADA

to allow for the use of water and deposit of waste during maintenance, monitoring, and eventual decommissioning of an existing Landfarm Facility at the Resolute Bay Land Farm Maintenance/Decommissioning Project, located near Resolute Bay, within the Qikiqtani Region of Nunavut, generally at the following geographical coordinates:

Latitude:	74° 44' 34.28" N	Longitude:	95° 00' 17.18" W
Latitude:	74° 44' 34.58" N	Longitude:	95° 00' 02.78" W
Latitude:	74° 44' 30.04" N	Longitude:	95° 00' 01.46" W
Latitude:	74° 44' 30.52" N	Longitude:	95° 00' 15.23" W

DECISION

After having been satisfied that the Application is in conformity with the North Baffin Regional Land Use Plan¹ and subject to a 12.4.4 (a) Screening Decision by the Nunavut Impact Review Board² in accordance with Article 12 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 (Act)* 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 considering the 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 *Act*, waived the requirement to hold a public hearing, and determined that:

Licence No. 1BR-RLF1520 be issued subject to the terms and conditions contained therein (Motion #: 2015-B1-026).

Signed this 17th day of August, 2015 at Gjoa Haven, NU.

Thomas Kabloona
Nunavut Water Board, Chair

TK/sj/ri

¹ Nunavut Planning Commission (NPC) Confirmation Determination, May 17, 2012.

² Nunavut Impact Review Board (NIRB) Screening Decision, June 22, 2014.



NUNAVUT WATER BOARD WATER LICENCE

Licence No. 1BR-RLF1520

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)

3RD FLOOR -344 EDMONTON STREET WINNIPEG, MANITOBA R3C 0P6

(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-RLF1520 / TYPE "B"

Water Management Area: BATHURST & CORNWALLIS ISLANDS WATERSHED (55)

Location: RESOLUTE BAY LANDFARM MAINTENANCE /
DECOMMISSIONING PROJECT
QIKIQTANI REGION, NUNAVUT

Classification: INDUSTRIAL UNDERTAKING

Purpose: DIRECT USE OF WATER AND DEPOSIT OF WASTE

Quantity of Water use not
to Exceed: FIVE (5) CUBIC METRES / ANNUM

Date of Licence Issuance: AUGUST 17, 2015

Expiry of Licence: AUGUST 16, 2020

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 an Industrial undertaking classified as per Schedule 1 of the *Regulations* at the Resolute Bay Land Farm / Decommissioning Project, located approximately six (6) kilometres north of the Hamlet of Resolute Bay, within the Qikiqtani Region, 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**

“**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;

“**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*;

“**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*;

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

“**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*;

“**Land Farm Facility**” refers to the two existing Landfarm Treatment Units (LTUs), LTU 1 and LTU 2, and associated infrastructures constructed to contain and treat Petroleum Hydrocarbon Impacted Soil, as depicted in Drawing No. 3 (LTU Locations) of the Plan entitled *Resolute Bay, Land Farm Operation and Maintenance Plan*,” dated January 2012.

“**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;

“**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;

“**Regulations**” means the *Nunavut Waters Regulations sor 2013/669 18th April, 2013*;

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

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

“**Treatment Objective**” means the treatment objective for the Land Treatment Unit which is based on the Canadian Council of Ministers of the Environment (CCME) *Canada – Wide Standard for Petroleum Hydrocarbon in Soil*, revised January 2008; and as determined by the Government of Nunavut, Environmental Protection Service based

on the 2009 *Environmental Guideline for Site Remediation*; See Table No. 1;

“Type B Soil” means soil contaminated with petroleum 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; this soil does not contain polychlorinated biphenyl (PCB).

“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 March of the year following the calendar year being reported, containing the following information:
 - a. A summary report of water use and waste disposal activities;
 - i. Quantity of water used for sampling purposes;
 - ii. Quantity and quality of Effluent discharged from Landfarm;
 - iii. Quantity and characterization of soils placed within the Landfarm for treatment.
 - b. A list of unauthorized discharges and a summary of follow-up actions taken;
 - c. Any revisions to the Spill Contingency Plan, Abandonment and Restoration Plan, and other plans associated with the Licence, as required by Part B, Item 9, submitted in the form of an Addendum;
 - d. Any records pertaining to the depth of permafrost as determined based on Part F,

- Item 5.
- e. A description of all progressive and or final reclamation work undertaken, including photographic records of site conditions before, during and after completion of operations;
 - f. A summary of all information requested and results of the Monitoring Program; and
 - g. Any other details on water use or waste disposal requested by the Board by the 1st November of the year being reported.
2. 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
 3. The Licensee shall post signs in the appropriate areas to identify the stations of the Monitoring Program associated with the Landfarm Facility. All signage postings shall be in the Official Languages of Nunavut.
 4. 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.
 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 implement suitable methods required for measuring the volumes soil and water associated with the project as required under Part J, Item 1 and Part J, Item 6, respectively.
 7. The Licensee shall, for all Plans submitted under this Licence, implement the Plan as approved by the Board in writing.
 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 review the Plans referred to in this Licence as required by changes in operation and/or technology and modify the Plans accordingly. Revisions to the Plans are to be submitted in the form of an Addendum to be included with the Annual Report required by Part B, Item 1, complete with a revisions list detailing where significant content changes are made.
 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, AANDC
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 (1) paper copy and one (1) 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*.
14. The expiry or cancellation of this Licence does not relieve the Licensee from any obligation imposed by the Licence, or any other regulatory requirement.

PART C: CONDITIONS APPLYING TO WATER USE

1. The Licensee is authorized to use up to five (5) cubic metres of water annually for monitoring and related purposes.
2. Streams cannot be used as a water source for purposes inconsistent with Part C, Item 1, 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 not cause erosion to the banks of any body of water and shall provide necessary controls to prevent such erosion.
5. The Licensee shall implement and maintain sediment and erosion control measures prior to and during the operation to prevent entry of sediment and/or dust 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-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. All waste generated under the Licence shall be removed from site and disposed of in an approved waste disposal facility.
3. The Licensee shall treat Type B soil contained in the Landfarm Facility to meet relevant Treatment Objective, or as otherwise approved by the Board in writing.
4. The Licensee shall maintain the Landfarm to the satisfaction of the Inspector.
5. The Licensee shall provide at least ten (10) days' written notice to the Inspector and the Board prior to any planned discharges from the Landfarm Facility. The notice shall include the estimated discharge volume, Effluent quality or results of monitoring under Part D, Item 6, and the proposed location for the discharge.
6. All Effluent discharged from the sump of the Landfarm Facility, at monitoring station RLF-1, shall not exceed the following Effluent quality limits:

Parameter	Maximum Concentration of any Grab Sample (µg/L)
pH	6 to 9 (pH units)
Oil and Grease	5000
Lead (dissolved)	1
Benzene	370
Toluene	2
Ethylbenzene	90

7. If Effluent from RLF-1 does not meet the Effluent quality limits in Part D, Item 6, it shall be treated to meet such limits, or it shall be considered hazardous waste and disposed off-site at an approved facility or as otherwise approved by the Board in writing.
8. The discharge location for the Effluent described in Part D, Item 6 shall be situated at a minimum of thirty-one (31) metres from the ordinary High Water Mark of any water body and where direct or indirect flow into a water body is not possible and no additional impacts are created.
9. The Licensee shall dispose of soils containing contaminants in excess of the Treatment Objectives, off site at an approved treatment facility or as otherwise approved by the Board in writing.

10. Licensee shall treat all Petroleum Hydrocarbon Contaminated (PHC) soil associated with the Project at the Landfarm Facility operated by the Licensee. The contaminated soil must be treated to meet appropriate Treatment Objective, prior to removal of the soil for future use and following confirmation with the Government of Nunavut - Environmental Protection Service that the required Treatment Objectives have been achieved.

PART E: CONDITIONS APPLYING OPERATIONS

1. The Board has approved the Plan entitled *Resolute Bay, Land Farm Operation and Maintenance Plan*, dated January 2012.
2. The Licensee shall implement appropriate measures prior to, during, and following excavation of soil from the Landfarm Facility, to prevent or minimize impact to water.
3. The Licensee shall not mix or blend PHC contaminated soils with non-contaminated soils for the expressed purpose of achieving the Treatment Objective.
4. The Licensee shall implement proper handling, storage and transportation procedures for the management of hazardous materials during execution of the Project.
5. The Licensee shall minimize disturbance to terrain, permafrost and drainage during extraction of granular material, movement of contractor's equipment and personnel around the site and removal of site debris.

PART F: CONDITIONS APPLYING TO DRILLING OPERATIONS

1. The Licensee is authorized to drill for the purpose of installing groundwater monitoring wells and other instruments related to monitoring.
2. The Licensee shall not conduct any land-based drilling within thirty-one (31) metres of the ordinary High Water Mark of any water body, unless otherwise approved by the Board in writing.
3. The Licensee shall ensure that all drill waste, including chips, muds and salts (CaCl₂) 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-one (31) 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.
4. 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. The Licensee shall report all artesian flow occurrences within the Annual Report, including the location (GPS coordinates) and dates.

5. The Licensee shall, where drilling activity has penetrated below the permafrost layer, record the depth of permafrost and location of the drill hole for inclusion in the annual report required by Part B, Item 1.

PART G: CONDITIONS APPLYING TO 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 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.
2. Modifications for which all of the conditions referred to in Part G, 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 the Modifications referred to in this Licence within ninety (90) days of completion of the Modification. These plans and drawings shall be stamped by an Engineer.

PART H: CONDITIONS APPLYING TO SPILL CONTINGENCY PLANNING

1. The Board has approved the Plan entitled *Resolute Bay Land Farm Treatment Facility, Spill Contingency Plan*, dated January 2012 and submitted as additional information with the Application.
2. The Licensee shall update and submit for the NWB's review within the next Annual Report for the Project the Plan referred to Part H, Item 1, in accordance with the format set out by the Consolidation of Spill Contingency Planning and Reporting Regulations R-068-93 and addressing the following issues:
 - a. Inclusion of a detailed site or topographic map containing information of site facilities, including spill kits or equipment, nearby water bodies, and related information;

- b. Updating the contact information for important groups and entities that will need to be contacted in the event of a spill to include Environment Canada, Government of Nunavut – Department of Environment;
 - c. Updating the effective date of the project to reflect the term of the licence; and
 - d. Inclusion of copies of Material Safety Data Sheet (MSDS) or referencing where they can be found.
3. 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.
 4. The Licensee shall carryout 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.
 5. 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 I: CONDITIONS APPLYING TO ABANDONMENT AND RESTORATION OR TEMPORARY CLOSING

1. The Board has approved the Plan entitled *Stand Alone Abandonment and Restoration Plan, Resolute Bay Airport Land Farm, Nunavut*, dated January 2012 and submitted as additional information with the Application.
2. The Licensee shall complete all restoration work prior to the expiry of this Licence.
3. The Licensee shall carry out progressive reclamation of any components of the project no longer required for the Licensee's operations.
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. In order to promote growth of vegetation and the required microclimate for seed deposition, all disturbed surfaces shall be prepared by ripping, grading, or scarifying the surface to conform to the natural topography.

6. Areas that have been contaminated by hydrocarbons shall be reclaimed to meet objectives as outlined in the Government of Nunavut’s *Environmental Guideline for Site Remediation, January 2009* (Revised March 2009). The use of reclaimed soils for the purpose of backfill or general site grading may be carried out only upon consultation with and approval by the Government of Nunavut – Department of Environment and an Inspector.
7. All disturbed areas shall be contoured and stabilized upon completion of work and restored to a pre-disturbed state.

PART J: CONDITIONS APPLYING TO THE MONITORING PROGRAM

1. The Licensee shall measure and record the volume of all soil deposited and/or removed from the Landfarm Facility.
2. The Licensee shall maintain the Monitoring Program Stations, and conduct sampling and analysis requirements as described below:

Monitoring Program Station ID	Description	Frequency	Parameters
RLF-1	Discharge from Landfarm Facility Sump	Prior to discharge	(Volume) Quality in accordance to Parameters in Part D, Item 6)
RLF – MW1	Monitoring Well up-gradient of Landfarm Facility	Twice/year (After Freshet and the end of	(Quality) in accordance with Part J, Item 9
RLF – MW2	Monitoring well down-gradient of Lanfarm Facility	Twice/year (After Freshet and the end of treatment season)	(Quality) in accordance with Part J, Item 9
RLF – MW3			

3. The Licensee shall determine the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) of all locations where remediated soil is deposited.
4. The Licensee shall confirm the locations and GPS coordinates for all Monitoring Program Stations referred to in Part H, Item 2 with an Inspector.
5. The Licensee shall assess and record the concentration of F1 – F4 fractions in petroleum hydrocarbon contaminated soil, according to the CCME *Canada-Wide Standard for Petroleum Hydrocarbons (PHC) in Soil* that is entering and/or removed from the Landfarm Facility.

6. The Licensee shall measure and record the volume of water used for all purposes under this licence.
7. The Licensee shall sample and record the volume of all Effluent discharged from the Landfarm Facility at Monitoring Program Station RLF-1.
8. The Licensee shall sample prior to discharge at Monitoring Program Station RLF-1, to confirm compliance with the Effluent quality limits under Part D, Item 6
9. The Licensee shall sample Monitoring Program Stations RLF-MW1, RLF-MW2, and RLF-MW3 in accordance with frequencies included under Part J, Item 2, giving consideration to adequate ground thaw and obtaining a representative groundwater sample. Samples shall be analyzed for the following parameters:

Total Suspended Solids	pH
Total Hardness	Total Alkalinity
Conductivity	Nitrate-Nitrite
Ammonia Nitrogen	Chloride
Oil and Grease	Total Phenols
Calcium	Magnesium
Sodium	Potassium
Chloride	Sulphate
Total Aluminum	Total Arsenic
Total Cadmium	Total Cobalt
Total Copper	Total Iron
Total Lead	Total Molybdenum
Total Nickel	Total Selenium
Total Silver	Total Titanium
Total Zinc	
Total Extractable Hydrocarbons (TEH)	
Polycyclic Aromatic Hydrocarbons(PAH)	
Benzene, Toluene, Ethylbenzene, Xylene (BTEX)	

10. All sampling, sample preservation and analyses shall be conducted in accordance with methods prescribed in the most recent edition of *Standard Methods for the Examination of Water and Wastewater*, or by such other methods approved by the Board.
11. All analyses shall be performed in a laboratory accredited according to ISO/IEC Standard 17025. The accreditation shall be current and in good standing.
12. The Licensee shall within ninety (90) days following issuance of the Licence submit to the Board for review and acceptance a Quality Assurance/Quality Control (QA/QC) Plan. The Plan shall include up-to-date sampling methods based on applicable standards and other information relevant to sampling. The Plan shall also include a cover letter from an accredited laboratory referenced under Part J, Item 11, confirming approval of the Plan for the analyses to be performed under this Licence.

13. Additional monitoring requirements may be requested by the Inspector.
14. The Licensee shall include in the Annual Report required under Part B, Item 1 all data, monitoring results and information required by this Part.
15. Modifications to the Monitoring Program may be made only upon written request and subsequent approval of the Board in writing.