

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

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

Sincerely,



Thomas Kabloona  
A/Chief Executive Officer

DF/ajw/pb

Enclosure: Licence No. **3BM-WCL0712**

Cc:	Jim Rogers	INAC
	Carson Gillis	NTI
	Cindy Parker	EC
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NUNAVUT WATER BOARD  
NUNAVUT IMALIRIYIN KATIMAYINGI  
OFFICE DES EAUX DU NUNAVUT

## DECISION

### LICENCE NUMBER: 3BM-WCL0712

This is the decision of the Nunavut Water Board (NWB) with respect to an application for a Licence dated June 2, 2006 made by the:

#### HAMLET OF WHALE COVE

to allow for the use of water and disposal of waste during Landfarm Facility operations in the Community of Whale Cove within the Kivalliq Region, Nunavut, at general latitude 62°11'N and general longitude 92°35'W.


### DECISION

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

After reviewing the submission of the Applicant and representations made by interested persons, the NWB, having given due regard to the facts and circumstances, the merits of the submissions made to it and to the purpose, scope and intent of the NLCA and of the NWSRTA, decided to waive the requirement to hold a public hearing and determined that:

**Licence Number 3BM-WCL0712 be issued subject to the terms and conditions contained therein. (Motion #: 2007-11-10)**

SIGNED this 27<sup>th</sup> day of September 2007 at Gjoa Haven, NU.

  
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Thomas Kabloona  
A/Chief Executive Officer

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## **I. INTRODUCTION**

The Community of Whale Cove is located within the Kivalliq Region, Nunavut, at general latitude 62°11'N and general longitude 92°35'W. The Community is located approximately 80 km south of Rankin Inlet.

Whale Cove is located in a narrow inlet projecting northeastward from the head of Spence Bay. A ridge of Pre-Cambrian rock approximately 23 m in height surrounds the Community, and boulder fields and rock outcrops are common in the area. The Community is located in a zone of continuous permafrost, which has an active layer of approximately 50 cm and 1 m (in poorly drained and well drained soils, respectively). A thin organic layer supports a limited growth of lichen and moss on the low hills in the area.

Whale Cove receives an average of 10.6 cm of rainfall and 118 cm of snowfall *per annum*. Mean annual precipitation totals 27.8 cm *per annum*. July mean high and low temperatures are 12.5°C and 4.2°C, respectively. January mean high and low temperatures are -28.0°C and -34.7°C, respectively. Winds are generally north-west, and average 24 km/h.

During the remediation of the Community's POL tank farm in 2006, approximately 1420m<sup>3</sup> of soils were identified as hydrocarbon contaminated. The Community intends to develop a Landfarm facility, where this soil and other hydrocarbon-contaminated soils may be remediated, and utilized for industrial purposes.

## **II. PROCEDURAL HISTORY**

On June 2, 2006, an application for water licence was filed with the Hamlet of Whale Cove, for water use and waste disposal activities within the Community, which is located within the Kivalliq Region, Nunavut, at general latitude 62°11'N and general longitude 92°35'W.

The Application was distributed to interested persons for review on August 25, 2006. No significant concerns with the activities proposed by the Applicant were received from the Parties prior to the deadline for comments. However, it has come to the attention of the NWB that the landfarm has in fact been constructed without a water licence.

Accordingly, on May 28, 2007, pursuant to sections 86 and 87 of the NWNSRTA, the NWB advised the Department of Indian and Northern Affairs Canada (INAC) of the unauthorized actions of the Hamlet.<sup>1</sup> At that time, the Board was requesting guidance from INAC on (a) issuing of a licence of the existing facilities for past activities, and/or (b) issuing a licence to these facilities for purposes of monitoring the future operations.

On July 20, 2007, INAC responded:

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<sup>1</sup> Letter from NWB to INAC dated May 28, 2007; re: Facilities constructed prior to NWB approval

The NWB delay in processing an application does not authorize the applicant to use water or dispose of waste in contravention of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (NWNSTRA). An applicant must diligently pursue its application for a licence, and must not engage in activities prohibited by sections 11 and 12 of the NWNSTRA until it has an approved water licence.<sup>2</sup>

INAC further advised the Board that INAC Water Resource Officers will be inspecting all Nunavut communities in the coming months for compliance with the NWNSTRA to determine whether further compliance and enforcement action is warranted.

Further INAC stated:

While INAC does not condone violations of the NWNSTRA, it is clear that the possibility of past violations must not forestall the NWB from reviewing a pending application. We encourage the NWB to continue its review of these applications. Further, we would be willing to recommend to the applicants that they submit information on the current status of the activities or infrastructure referenced in their original amendment applications.<sup>2</sup>

The Board continued with its review of the Application and issued a Type B Water Licence Amendment effective September 25, 2007, to allow for the operation of a Landfarm Facility in the Hamlet of Whale Cove.

The Board does not condone the Applicant's failure to comply with NWNSTRA and notes that the Licence does not operate retroactively.

### **III. GENERAL CONSIDERATIONS**

#### **A. Term of the 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 NWB believes that a term of approximately five (5) years is appropriate. The licence term will allow the Licensee to properly carry out the terms and conditions of the licence and will ensure that sufficient time is given to permit the Licensee to develop, submit and implement the plans required under the licence to the satisfaction of the NWB.

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<sup>2</sup> Response from INAC to NWB; re: NWB letter dated May 28, 2007

## **B. Deposit of Waste**

### **Solid Waste - Landfill**

The Licensee has indicated that contaminated soil will be placed in appropriately designed engineered Landfarm Facility. The Landfarm Facility shall accept 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. Soils contaminated by hydrocarbons that are resistant to, or preclude, biological treatment by landfarming shall not be acceptable.

The Board, having duly considered these issues and the submission of the Applicant, has set the terms and conditions in the water licence, which govern the segregation and treatment of hydrocarbon-contaminated soil for eventual industrial re-use, during the proposed undertaking accordingly.

## **C. Annual Report**

The requirements imposed on the Licensee in this licence are for the purpose of ensuring that the NWB has an accurate annual update of water use and depositions of waste during a calendar year. This information is maintained on the public registry and is available to any interested persons upon request. The requirements of this Annual Report can be found in Part B, Item 1. A standard form for annual reporting under Part B, Item 1, can be downloaded from the NWB ftp site at <ftp://nunavutwaterboard.org/ftp/> in the administration folder.

## **D. Spill Contingency Planning**

The Board generally requires that all Licensees prepare a comprehensive Spill Contingency Plan to establish a state of readiness to ensure a prompt and effective response to possible spills or system failure events. The site-specific spill contingency plan will assist the Licensee in responding to emergencies such that the impacts to water in particular and the environment and public health in general are minimized. The NWB has imposed the requirement on the Licensee that a Spill Contingency Plan be developed in accordance with the requirements outlined in Part H, Item 1, and submitted to the NWB within ninety (90) days of the issuance of this Water Licence.

## **E. Abandonment and Restoration (A&R)**

To ensure that all facilities are reclaimed in an appropriate manner upon abandonment, the NWB requires Licensees to prepare and submit an Abandonment and Restoration Plan, at least six (6) months prior to abandoning any facility. Other conditions for restoration have been included under Part I of this Water Licence.

**LICENCE 3BM-WCL0712**

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

**HAMLET OF WHALE COVE**

Of (Licensee)  
**PO BOX 120, WHALE COVE NUNAVUT, X0C 0J0**  
(Mailing Address)

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

Licence Number **3BM-WCL0712**

Water Management Area **NUNAVUT 04**

Location **WHALE COVE, KIVALLIQ REGION, NUNAVUT**

Purpose **WASTE DISPOSAL**


Classification of Undertaking **INDUSTRIAL – TYPE “B”**

Quantity of Water Not to Exceed **NO WATER USE REQUIRED**

Date of Licence **SEPTEMBER 27, 2007**

Expiry Date of Licence **SEPTEMBER 30, 2012**

Dated this 27<sup>th</sup> day of September 2007 at Gjoa Haven, NU.

  
\_\_\_\_\_  
Thomas Kabloona  
A/Chief Executive Officer



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

### **1. Scope**

This Licence allows for the use of water and the disposal of waste for an undertaking classified as Industrial Landfarm Facility operations in the Community of Whale Cove, which is located within the Kivalliq Region, Nunavut, at general latitude 62°11'N and general longitude 92°35'W.

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

### **2. Definitions**

In this Licence: **3BM-WCL0712**

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

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

**“Appurtenant undertaking”** means an undertaking in relation to which a use of waters 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*;

**“Chief Administrative Officer”** means the Executive Director of the Nunavut Water Board;

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

**“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;

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

**“Landfarm Facility”** means an area designed to biologically treat Type B soils, as described in the Application for Water Licence filed by the Applicant on June 2, 2006;

**“Licensee”** means the individual or organization to which Licence 3BM-WCL0712 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;

**“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;

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

**“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;

**“Treatment Objective”** means the treatment objective for the Landfarm Facility which is the Canadian Council of Ministers of the Environment (CCME), 2001 *Canada – Wide Standard for Petroleum Hydrocarbon in Soil*, for Industrial land use; and

**“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;

**“Waste”** means as defined in S.4 of the *Act*, any substance that, by itself or in combination with other substances found in water, would have the effect of altering the

quality of any water to which the substance is added to an extent that is detrimental to its use by people or by any animal, fish or plant, or any water that would have that effect because of the quantity or concentration of the substances contained in it or because it has been treated or changed, by heat or other means.

**“Waste Disposal Facilities”** means all facilities designated for the disposal of waste, and includes the Sewage Disposal Facilities, Solid Waste Disposal Facilities, and Landfarm Facility, as described in the Application for Water Licence filed by the Applicant on June 2, 2006, with supplemental information.

### **3. Enforcement**

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

## **PART B: GENERAL CONDITIONS**

1. Licensee shall file an Annual Report on the appurtenant undertaking with the Board no later than March 31st of the year following the calendar year being reported which shall contain the following information:
  - i. The monthly and annual quantities (in cubic metres) of material deposited in the Landfarm Facility;
  - ii. A summary of any construction work, modification and major maintenance work (including as-built diagrams) carried out on the Landfarm Facility, including all associated structures;
  - iii. Tabular summaries for all data and information generated under the “Monitoring Program”;
  - iv. An analysis of data collected during the “Monitoring Program” and a brief description of any future studies planned by the Licensee;
  - v. A summary of any abandonment and restoration work undertaken during the year and an outline of any work anticipated for the next year;
  - vi. 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;
  - vii. A list of unauthorized discharges and summary of follow-up actions taken;
  - viii. Any revisions to the approved Spill Contingency Plan and Abandonment and

- Restoration Plan;
- ix. 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;
  - x. A public consultation/participation report describing consultation with local organizations and the residents of the nearby communities;
  - xi. A brief summary of work done to address concerns or deficiencies listed in the inspection reports and/or compliance reports prepared by an Inspector;
  - xii. An executive summary in English and Inuktitut of all plans, reports, or studies conducted under this Licence; and
  - xiii. Any other details on water use or waste disposal requested by the Board by November 1<sup>st</sup> 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 install flow meters or other such devices, or implement suitable methods required for the measuring of water volumes, to be operated and maintained to the satisfaction of an Inspector.
  4. The Licensee shall, within sixty (60) days of issuance of this Licence, post signs in the appropriate area to inform the public of the location of the Landfarm Facility, and the stations of the "Monitoring Program". All postings shall be in the Official Languages of Nunavut and located and maintained to the satisfaction of an Inspector.
  5. The Licensee shall ensure a copy of this Licence is maintained at the site of operations at all times. Any communication with respect to this Licence shall be made in writing to the attention of:

(i) **Manager of Licensing:**  
Nunavut Water Board  
P.O. Box 119  
Gjoa Haven, NU X0B 1J0  
Telephone: (867) 360-6338  
Fax: (867) 360-6369  
Email: [licensing@nunavutwaterboard.org](mailto:licensing@nunavutwaterboard.org)

(ii) **Inspector Contact:**  
Water Resources Officer  
Nunavut District, Nunavut Region  
P.O. Box 100  
Iqaluit, NU X0A 0H0  
Telephone: (867) 975-4298  
Fax: (867) 979-6445

6. 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.
7. The Licensee shall ensure that any document(s) or correspondence submitted by the Licensee to the Board is received and acknowledged by the Manager of Licensing.
8. This Licence is not assignable except as provided in Section 44 of the *Act*.

**PART C: CONDITIONS APPLYING TO THE PROTECTION OF WATER**

1. The Licensee shall not remove any material from below the ordinary high water mark of any water body.
2. The Licensee shall not do anything that will cause erosion to the banks of any body of water and shall provide necessary controls to prevent such erosion.
3. The Licensee shall implement sediment and erosion control measures to prevent the deposition of dust and/or sediment arising from contractor activities or on-site vehicular travel into water.

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

1. The Licensee shall treat, to the appropriate Soil Quality Remediation Objectives, Type B soil in a Landfarm Facility constructed and operated in a manner in accordance with the Plans contained in the application submitted to the Board by the Licensee on June 2, 2006, with supplemental information.
2. The Licensee shall locate areas designated for waste disposal at a minimum distance of thirty (30) metres from the ordinary high water mark of any water body such that the quality, quantity or flow of water is not impaired, unless otherwise authorized by the Board.
3. The Licensee shall provide at least 15 days written notice to the Inspector prior to any planned discharges from the sump in the Landfarm Facility. The notice shall include the volume proposed for discharge
4. All water from dewatering contaminated soil areas, contact water within the perimeter of the Landfarm and/or any other liquid effluent shall meet the following wastewater discharge limits prior to being released onto land:

<b>Parameter</b>	<b>Maximum Allowable Concentration (µg/L)</b>
pH	6 to 9
Oil and Grease	5000
Arsenic (total)	100
Cadmium (dissolved)	10
Chromium (dissolved)	100
Cobalt (dissolved)	50
Copper (dissolved)	200
Lead (dissolved)	50
Mercury (total)	0.6
Nickel (dissolved)	200
PCB (total)	1000
Phenols	20
Zinc (total)	500

5. If the wastewater discharge limits of Part D, Item 4 are not met, the Licensee shall manage the materials as hazardous waste and properly dispose of at an approved facility.
6. The Licensee shall ensure that any effluent released from Monitoring Station PON-8 be demonstrated to be Not Acutely Toxic, in accordance with Part J, Item 7.
7. The discharge location for all treated effluents described in Part D Items 3 shall be to the satisfaction of an Inspector and shall at a minimum be located 30 metres from the ordinary high water mark from any water body and where direct flow into a water body is not possible and no additional impacts are created.
8. All pump out water from excavation and borrow pits shall be pumped to an area approved by an Inspector.
9. The Licensee shall dispose of soils containing contaminants in excess of Canadian Environmental Protection Act (CEPA) Guidelines off site at an approved treatment facility.

#### **PART E: CONDITIONS APPLYING TO THE UNDERTAKING**

1. The Licensee shall ensure that the location and construction parameters of the Landfarm Facility, roads including stream crossings, active layer monitoring wells, thermal monitoring sites and any other associated structures conform to the plans submitted to the Board by the Applicant on June 2, 2006, with supplemental information.
2. The Licensee shall, if any constructed facilities were to fail, repair such facilities immediately to the satisfaction of an Inspector.

3. The Licensee shall ensure that 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.
4. All sites affected by construction or removal 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.
5. The Licensee shall restore and stabilize all areas affected by the undertaking upon completion of the work, to the satisfaction of an Inspector.
6. The Licensee shall not deposit any waste in any body of water, or on the banks thereof, which may impair the quality, quantity, or flow of water.
7. Areas designated for waste disposal shall be located at a minimum of thirty (30) metres from the ordinary high water mark of any body of water, unless otherwise authorized.

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

1. The Licensee is authorized to drill and install monitoring wells in accordance with the Project Drawings and Specifications contained in the application submitted to the Board by the Licensee on June 2, 2006, with supplemental information.

**PART G: CONDITIONS APPLYING TO MODIFICATIONS**

1. The Licensee may, without written consent from the Board, carry out Modifications to the Landfarm Facility, provided that such Modifications are consistent with the terms of this Licence and the following requirements are met:
  - i. the Licensee has notified the Board in writing of such proposed Modifications at least sixty (60) days prior to beginning the Modifications;
  - ii. such Modifications do not place the Licensee in contravention of the Licence or the *Act*;
  - iii. the Board has not, during the sixty (60) days following notification of the proposed Modifications, informed the Licensee that review of the proposal will require more than sixty (60) days; and
  - iv. the Board has not rejected the proposed Modifications.
2. Modifications for which all of the conditions referred to in Part 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 Licensee shall submit to the Board for approval, within ninety (90) days of issuance of the Licence, an “*Environmental Emergency Contingency Plan For Landfarm Facility Operations in the Hamlet of Whale Cove, Nunavut*”, taking into consideration, at a minimum, any applicable comments received during the Application review process and any applicable guidance documents approved by the NWB. This Plan shall include the following:
  - i. The name, address and contact number for the person in charge, management or control of the contaminant (in this case, fuel oil and any other chemicals associated with the program);
  - ii. The name and address and telephone number of the employer;
  - iii. The name, job title and 24 hour contact number for the person or persons responsible for activating the spill plan;
  - iv. A detailed description of the facility, including its geographic location – in UTM coordinates (map sheet number, Eastings and Northings) and geographic coordinates (Lat/Long) – size and storage capacity;
  - v. A description of the type and amount of contaminants stored on site;
  - vi. A description of the spill prevention measures to be undertaken in the handling, storage and disposal of petroleum products and hazardous materials;
  - vii. Steps taken to report, contain, clean up and dispose of a spill;
  - viii. A site map of sufficiently large scale to show the location of buildings, contaminants storage areas, sensitive areas such as water bodies, probable pathways of contaminant flow and general topography;
  - ix. A description of the spill response training provided to employees who will respond to a spill;
  - x. An inventory and location of the response and clean up equipment available to the spill clean up team;
  - xi. The means by which the spill plan is activated; and
  - xii. The date that the spill plan was prepared.
2. If the Plan referred to in Part H, Item 1 is not approved, the Licensee shall make the necessary revisions and resubmit the Plan within thirty (30) days following notification from the Board.
3. The Licensee shall implement the Plan specified in Part H, Item 1 as and when approved by the Board.
4. The Licensee shall annually review the Plan referred to in this Part and if needed, modify it to reflect changes in operation and/or technology. The Plan and any revisions shall be submitted with the Annual Report.



5. The Licensee shall ensure that any chemicals, petroleum products or wastes associated with the project do not enter water. All sumps and fuel caches shall be located at a distance of at least thirty (30) metres from the ordinary high water mark of any adjacent water body and inspected on a regular basis.
6. The Licensee shall ensure that any equipment maintenance and servicing be conducted only in designated areas and shall implement special procedures (such as the use of drip pans) to manage motor fluids and other waste and contain potential spills.
7. If during the term of this Licence, an unauthorized discharge of waste occurs, or if such a discharge is foreseeable, the Licensee shall:
  - i. Employ the Spill Contingency Plan, or in the absence of an approved Plan undertake such measures as are reasonable and prudent, so as to prevent the spill from occurring or to mitigate the health, safety and environmental risks and consequences of the spill, and that demonstrate the due diligence of the Licensee in this regard;
  - ii. Report the spill immediately to the 24-Hour Spill Line at (867) 920-8130 and to the Inspector at (867) 975-4295; and
  - iii. For each spill occurrence, submit to the Inspector, no later than thirty (30) days after initially reporting the event, a detailed report that will include the amount and type of spilled product, the GPS location of the spill, and the measures taken to contain and clean up the spill site.

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

1. The Licensee shall submit to the Board for approval an Abandonment and Restoration Plan at least six (6) months prior to abandoning any facilities and the construction of new facilities to replace existing ones. The Plan shall include, but not be limited to where applicable:
  - i. waste disposal sites and facilities;
  - ii. petroleum and chemical storage areas;
  - iii. any site affected by waste spills;
  - iv. leachate prevention;
  - v.
  - vi. maps delineating all disturbed areas, and site facilities;
  - vii. consideration of altered drainage patterns;
  - viii. type and source of cover materials;
  - ix. future area use;
  - x. hazardous wastes;

- xi. a proposal identifying measures by which restoration costs will be financed by the Licensee upon abandonment; and
  - xii. an implementation schedule.
2. The Licensee shall implement the plan specified in Part I, Item 1 as and when approved by the Board.
  3. The Licensee shall revise the Plan referred to in Part I, Item 1 if not approved. The revised Plan shall be submitted to the Board for approval within thirty (30) days of receiving notification of the Board's decision.
  4. The Licensee shall complete the restoration work within the time schedule specified in the Plan, or as subsequently revised and approved by the Board.
  5. 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 to the satisfaction of an Inspector.

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

1. The Licensee shall maintain Monitoring Program Stations at the following locations:

<b>Monitoring Program Station Number</b>	<b>Description</b>
WCL-1	Soil entering Landfarm Facility
WCL-2	Discharge from the Landfarm Facility containment sump at the controlled point of release
WCL-3	Monitoring well located up gradient of the Solid Waste Disposal Facilities
WCL-4	Monitoring well located down gradient of the Solid Waste Disposal Facilities

2. The Licensee shall measure and record the volume of all soil from all locations entering the Landfarm Facility (WCL-1).
3. The Licensee shall assess and record the concentration of petroleum hydrocarbon contaminated soil entering the Landfarm Facility from all sources, as *per* the CCME *Canada-Wide Standard for Petroleum Hydrocarbons (PHC) in Soil*.
4. The Licensee shall install groundwater monitoring wells at the Landfarm Facility. These wells shall be located with at least one located upstream of the facility for background

data collection (WCL-3) and at least one downstream of the facility (WCL-4).

5. The Licensee shall sample at Monitoring Program Stations WCL-3 and WCL-4 once annually in the summer, giving consideration to adequate ground thaw and obtaining a representative groundwater sample. Samples shall be analyzed for the following parameters:

BOD	Faecal Coliforms
pH	Conductivity
Total	Suspended Solids Ammonia Nitrogen
Nitrate-Nitrite	Oil and Grease
Total Phenols	Total Alkalinity
Total Hardness	Calcium
Magnesium	Potassium
Sodium	Sulphate
Total Arsenic	Total Cadmium
Total Copper	Total Chromium
Total Iron	Total Lead
Total Mercury	Total Nickel
TPH (Total Petroleum Hydrocarbons)	
PAH (Polycyclic Aromatic Hydrocarbons)	
BTEX (Benzene, Toluene, Ethylbenzene, Xylene)	

6. The Licensee shall monitor compliance with respect to Part D Item 4, by collecting a representative sample from the sump, prior to release from the Final Discharge Point of the Landfarm Facility (WCL-2).
7. The Licensee shall conduct toxicity testing on the water contained in the Landfarm Facility collection sump prior to any discharge, in accordance with the following test procedures:
- Acute lethality to Rainbow Trout, *Oncorhynchus mykiss* (as per Environment Canada's Environmental Protection Series Biological Test Method EPS/1/RM/13); and
  - Acute lethality to the crustacean, *Daphnia magna* (as per Environment Canada's Environmental Protection Series Biological Test Method EPS/1/RM/14).
8. The Licensee shall report all results of acute toxicity testing as required under Part J, Item 7 within the Annual Report, as per Part B, Item 1
9. An Inspector may impose additional monitoring requirements.
10. 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.

11. The Licensee shall submit to the Board for approval thirty (30) days prior to releasing any effluent a Quality Assurance/Quality Control Plan that conforms to the guidance document "*Quality Assurance (QA) and Quality Control (QC) Guidelines For Use by Class "B" Licensees in Collecting Representative Water Samples in the Field and for Submission of a QAQC Plan*" INAC (1996).