

NORTHWEST
TERRITORIES
WATER BOARD



ALJ
bNL

WATER REGISTER NO: N7L1-1770

August 10, 2001

Mr. Randy Hetman
DAR/Construction Manager
Shell Canada Limited
400 - 4 Avenue S.W.
CALGARY, AB T2P 2H5

Dear Mr. Hetman:

ISSUANCE OF A "B" TYPE LICENCE

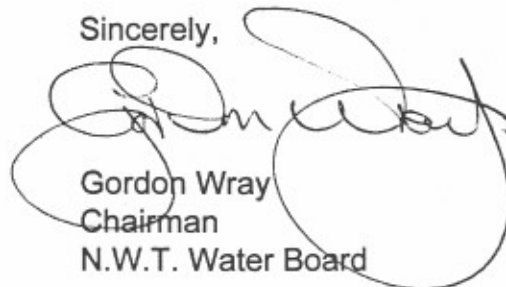
Attached is a duplicate of Licence No. N7L1-1770 granted to Shell Canada Limited by the Northwest Territories Water Board. The other original of this Licence has been filed with the Department of Indian Affairs and Northern Development in Yellowknife, Northwest Territories.

Also attached are general procedures for the administration of licences in the Northwest Territories. I request that you review these and address any questions to the Board's office.

In conclusion, please be advised that this letter with attached procedures, all inspection reports, and correspondence related thereto are part of the public Water Register, and are intended to keep all interested parties informed of the manner in which the Licence requirements are being met. All Water Register material will be considered when the Licence comes up for renewal or amendment.

The full cooperation of Shell Canada Limited is anticipated.

Sincerely,



Gordon Wray
Chairman
N.W.T. Water Board

Attachments (2)

GENERAL PROCEDURES FOR THE ADMINISTRATION OF LICENCES
ISSUED UNDER THE NORTHWEST TERRITORIES WATERS ACT
IN THE NORTHWEST TERRITORIES

1. At the time of issuance, a copy of the Licence is placed on the Water Register in the Office of the Northwest Territories Water Board in Yellowknife, and is then available to the public.
2. To enforce the terms and conditions of the Licence, the Minister of Indian Affairs and Northern Development has appointed Inspectors in accordance with Section 35(1) of the Northwest Territories Waters Act. The Inspectors coordinate their activities with officials of the Water Resources Division of the Department of Indian Affairs and Northern Development. The Inspector responsible for Licence No. N7L1-1770 is located in the North Mackenzie - Inuvik District Office.
3. To keep the Water Board and members of the public informed of the Licensee's conformity to Licence conditions, the Inspectors prepare reports which detail observations on how each item in the Licence has been met. These reports are forwarded to the Licensee with a covering letter indicating what action, if any, should be taken. The inspection reports and covering letters are placed on the public Water Register, as are any responses received from the Licensee pertaining to the inspection reports. It is therefore of prime importance that you react in all areas of concern regarding all inspection reports so that these concerns may be clarified.
4. If the renewal of Licence No. N7L1-1770 is contemplated it is the responsibility of the Licensee to apply to the Water Board for renewal of the Licence. The past performance of the Licensee, new documentation and information, and points raised during a public hearing, if required, will be used to determine the terms and conditions of any Licence renewal. Please note that if the Licence expires and another has not been issued, then water and waste disposal must cease, or you, the Licensee, would be in contravention of the Northwest Territories Waters Act. It is suggested that an application for renewal of Licence No. N7L1-1770 be made at least one year in advance of the Licence expiry date.
5. If, for some reason, Licence No. N7L1-1770 requires amendment, then a public hearing may be required. You are reminded that applications for amendments should be submitted as soon as possible to provide the Water

Board with ample time to go through the amendment process. The process may take up to six (6) months or more depending on the scope of the amendment requested.

6. Specific clauses of your Licence make reference to the Board, Analyst or Inspector. The contact person, address, phone and fax number of each is:

BOARD: Executive Assistant
Northwest Territories Water Board
Box 1500
YELLOWKNIFE, NT X1A 2R3

Phone No: (867) 669-2772
Fax No: (867) 669-2719

ANALYST: Analyst
Water Laboratory
Northern Affairs Program
Department of Indian Affairs
and Northern Development
Box 1500
4601 - 52nd Avenue
YELLOWKNIFE, NT X1A 2R3

Phone No: (867) 669-2780
Fax No: (867) 669-2718

INSPECTOR: Inspector
North Mackenzie-Inuvik District Office
Northern Affairs Program
Department of Indian Affairs
and Northern Development
P.O. Box 2100
INUUVIK, NT X0E 0T0

Phone No: (867) 777-3361
Fax No: (867) 777-2090

NORTHWEST TERRITORIES WATER BOARD

Pursuant to the *Northwest Territories Waters Act* and Regulations the Northwest Territories Water Board, hereinafter referred to as the Board, hereby grants to

SHELL CANADA LIMITED

(Licensee)

400 - 4 Avenue S.W.

of

CALGARY, ALBERTA T2P 2H5

(Mailing Address)

hereinafter called the Licensee, the right to alter, divert or otherwise use water subject to the restrictions and conditions contained in the *Northwest Territories Waters Act* and Regulations made thereunder and subject to and in accordance with the conditions specified in this Licence.

Licence Number

N7L1-1770

Licence Type

"B"

Water Management Area

NORTHWEST TERRITORIES 07

Location

West Channel of Mackenzie River
Latitude 68°28'33" N.
Longitude 135°33'25" W.
NORTHWEST TERRITORIES

Purpose

TO USE WATER AND DISPOSE OF
WASTE FOR INDUSTRIAL
UNDERTAKINGS

Description

SOIL REMEDIATION

Quantity of Water Not to be Exceeded

100 CUBIC METRES DAILY

Effective Date of Licence

AUGUST 1, 2001

Expiry Date of Licence

JULY 31, 2003

This Licence issued and recorded at Yellowknife includes and is subject to the annexed conditions.


Witness

NORTHWEST TERRITORIES WATER BOARD


Chairman

PART A: SCOPE AND DEFINITIONS

1. **Scope**

- a) This Licence entitles Shell Canada Limited to use water and dispose of waste for industrial undertakings in the soil remediation project at West Channel in the MacKenzie River Delta, located at Latitude 68°28'33" N. and Longitude 135°33'25" W., Northwest Territories;
- b) 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 *Northwest Territories Waters 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 automatically amended to conform with such Regulations; and
- c) 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: **N7L1-1770**

"Act" means the *Northwest Territories Waters Act*;

"Analyst" means an Analyst designated by the Minister under Section 35 (1) of the *Northwest Territories Waters Act*;

"Board" means the Northwest Territories Water Board established under Section 10 of the *Northwest Territories Waters Act*;

"Freeboard" means the vertical distance between water line and crest on a trench, dam or dyke's upstream slope;

"Grey water" 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 35(1) of the *Northwest Territories Waters Act*;

"Licensee" means the holder of this Licence;

"Maximum Average Concentration" means the moving average of any four (4) consecutive analytical results submitted to the Board in accordance with the sampling and analysis requirements specified in the "Surveillance Network Program";

"Minister" means the Minister of Indian Affairs and Northern Development;

"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;

"Project Description" refers to the report titled "Project Description for the Proposed Shell Canada Limited West Channel Remediation Plan", and dated April 2001 prepared by Inuvialuit Environmental & Geotechnical Inc.;

"Regulations" mean Regulations proclaimed pursuant to Section 33 of the *Northwest Territories Waters Act*;

"Sewage" means all toilet wastes and grey water;

"Waste" means waste as defined by Section 2 of the *Northwest Territories Waters Act*; and

"Waters" mean waters as defined by Section 2 of the *Northwest Territories Waters Act*.

PART B: GENERAL CONDITIONS

1. The water use fee shall be paid annually in advance.

2. The Licensee shall file an Annual Report with the Board not later than March 31 of the year following the calendar year reported which shall contain the following:
 - a) the total quantities in cubic metres of fresh Water obtained from all sources;
 - b) the total quantities in cubic metres of each and all Waste discharged;
 - c) the results of any sampling programs;
 - d) a summary of any Modifications carried out on the project as described in the Project Description;
 - e) a list of any spills and unauthorised discharges;
 - f) a description of any trenches excavated;
 - g) details on the restoration of any trenches; and
 - h) any revisions to the approved Emergency Response Plan.
3. Meters, devices or other such methods used for measuring the volumes of Waters used and Waste discharged shall be installed, operated and maintained by the Licensee to the satisfaction of an Inspector.
4. The Licensee shall advise the Board and the Inspector of the commencement of operations.
5. The Licensee shall ensure a copy of this Licence is maintained at the site of operation at all times.

PART C: CONDITIONS APPLYING TO WATER USE

1. The Licensee shall obtain Waters for all purposes from the Mackenzie River (West Channel) as described in the Project Description or as otherwise approved by an Inspector.
2. The daily quantity of Waters used for all purposes shall not exceed 100 cubic metres.
3. The water intake hose used on the water pumps shall be equipped with a screen with a mesh size sufficient to ensure no entrainment of fish.

PART D: CONDITIONS APPLYING TO WASTE DISPOSAL

1. The Licensee shall dispose of all Sewage in a manner acceptable to an Inspector.
2. The Licensee shall ensure that no Grey water sludges are disposed of within 30 metres of any water bodies.
3. The Licensee shall construct the recovery/containment trenches as described in the Project Description and maintain them to the satisfaction of an Inspector.
4. A freeboard limit of 1.0 metre in the recovery/containment trenches shall be maintained at all times or as otherwise approved by an Inspector.

5. Waste discharged from the Granular Activated Carbon/Clay treatment vessel or Storage/Discharge Tank as described in the Project Description shall meet the following effluent quality standards prior to discharge into the Mackenzie River:

<u>Sample Parameter</u>	<u>Maximum Average Concentration</u>	<u>Maximum Concentration of Any Grab Sample</u>
Ammonia	2.2 mg/L	4.40 mg/L
*Total Suspended Solids		
Solids	-	250.0 mg/L
Lead	0.05 mg/L	0.10 mg/L
Benzene	0.37 mg/L	0.74 mg/L
Ethylbenzene	0.09 mg/L	0.18 mg/L
Toluene	0.002 mg/L	0.004 mg/L
Xylene	0.30 mg/L	0.60 mg/L
Total Petroleum Hydrocarbons (TPH)	5.0 mg/L	10.0 mg/L

The Waste discharged shall have a pH between 6.0 and 9.0.

* Note: as sediment loads may vary considerably in the receiving Waters depending on the time of sampling, the Total Suspended Solids (TSS) value of the Waste discharge may not exceed 110% of the TSS value of the receiving Waters to a maximum concentration limit of 250.0 mg/L.

6. Effluent samples shall be collected and analysed for the parameters as described in number five above, based on either:

- i) one (1) - 24 Hour composite sample per week, or
- ii) two (2) grab samples per week.

Results are to be submitted within two weeks of analysis, to an Inspector. Sampling frequency may be modified at the request of an Inspector.

7. All 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 as may be approved by an Analyst.

8. The Licensee shall dispose of all solid wastes in a manner acceptable to an Inspector.
9. The Licensee shall ensure that any unauthorized Waste associated with the undertaking do not enter any Waters.

PART E: CONDITIONS APPLYING TO MODIFICATIONS

1. The Licensee may, with written approval from an Inspector, carry out modifications to the facilities as described in the Project Description provided that such modifications are consistent with the terms of this Licence and the modifications do not place the Licensee in contravention of either the Licence or the Act.

PART F: CONDITIONS APPLYING TO CONTINGENCY PLANNING

1. Within thirty (30) days of Licence issuance, the Licensee shall submit to the Board for approval, a final Emergency Response Plan, as identified as Annex A of the Project Description, which shall incorporate , and be prepared in accordance with the Board's "Guidelines for Contingency Planning, January 1987," or subsequent edition.
2. If, during the period of this Licence, an unauthorised discharge of Waste occurs, or if such a discharge is foreseeable, the Licensee shall:
 - a) employ the appropriate contingency plan;
 - b) report the incident immediately via the 24 Hour Spill Report Line. The current telephone number is (867) 920-8130; and
 - c) submit to an Inspector a detailed report on each occurrence not later than thirty (30) days after initially reporting the event.

PART G: CONDITIONS APPLYING TO ABANDONMENT AND RESTORATION

1. Upon completion of all required remediation activities, the Licensee shall ensure that all equipment and materials are removed from the site including surface piping, and that all affected sites are re-graded in such a manner as to minimize erosion, and that the natural drainage pattern is restored to the extent possible. Other final restoration activities as may be outlined in the Project Description should be implemented to the satisfaction of an Inspector.

NORTHWEST TERRITORIES WATER BOARD


Witness


Chairman