

Schedule III
(Subsection 6(1))

APPLICATION FOR LICENCE, AMENDMENT OF LICENCE, OR RENEWAL OF LICENCE

APPLICATION/LICENCE NO:
(amendment or renewal only)

1. Name and Mailing Address of Applicant

Petro-Canada
150 6th Ave. S.W.
Calgary AB T2P 3E3
Attention: Don Thompson, Logistics Superintendent, Drilling

Telephone: 403-296-6799

Fax: 403-296-3740

2. Address of Head office in Canada if incorporated

Telephone:

Fax:

3. Location of Undertaking (describe and attach a map, indicating watercourses and location of any proposed waste deposits)

WELL REFERENCE	STATUS	LOCATION
<i>Kurk Preliminary Wellsite Locations</i>		
J – 48	New	69°07'30" N – 135°25'58" W
C – 59	New	69°08'13" N – 135°29'01" W
B – 09	New	69°08'08" N – 135°30'57" W
K – 09	New	69°08'39" N – 135°16'52" W
M – 49	New	69°08'52" N – 135°26'54" W
<i>Napartok Preliminary Wellsite Locations</i>		
N – 03	New	68°32'59" N – 134°31'24" W
A – 56	New	68°35'08" N – 134°28'01" W
F – 29	New	68°28'19" N – 134°36'24" W
B – 12	New	68°31'01" N – 134°33'33" W

4. Description of Undertaking (describe and attach plans)

Petro-Canada is applying to construct a lease access road along the main Mackenzie channel for the purposes of a winter 2001/02 drilling program in the Mackenzie Delta region of the Northwest Territories. One drill location may be selected from the four potential sites identified within the Napartok area and potentially a short-duration winter well in the Kurk area may be selected from five potential sites. If drilled, the shallow winter Kurk well would likely be the first one drilled. The well(s) to be drilled will be finalized in September or October when interpretation of last year's seismic data is complete. The final wellsite location may differ from the conceptual locations identified, but will be located within a 1000 m radius of the locations identified.

- ### 5. Type of Undertaking

- | | |
|-----------------------|---------------|
| 1. Industrial | <u>X</u> |
| 2. Mining and milling | <u> </u> |
| 3. Municipal | <u> </u> |

4. Power _____
5. Agriculture _____

6. Conservation _____
7. Recreation _____

8. Miscellaneous (describe)

6. Water Use

To obtain water	<u>X</u>	Flood Control	<u> </u>
To cross a watercourse	<u> </u>	To divert water	<u> </u>
To modify the bed or bank of a watercourse	<u> </u>	To alter the flow of, or store, water	<u> </u>
Other (describe)	<u>To discharge treated wastewater</u>		

7. Quantity of Water Involved (litres per second, litres per day or cubic metres per year, including both quantity to be used and quality to be returned to source)

The construction phase may at times require large volumes of water for flooding ice roads and ice pads, with anticipated withdrawal volumes of 400m³ per day for approximately 20 days for each of the mobilization and demobilization periods. Water will be withdrawn from the river that the access is located on, or where the access last meets the river for land construction. The drilling rig will require water for the mud system and cementing operations, plus small quantities for routine activities. Quantities are typically less than 50m³ per day and infrequently spike to as high as 200m³ in one day. The rig camp use is fairly uniform at less than 50m³ per day. Water required for drilling operations and camp uses will be drawn from a larger nearby lake of adequate size to ensure that drawdown rates are minimized.

SCHEDULE III – *Concluded*APPLICATION FOR LICENCE, AMENDMENT OF LICENCE, OR RENEWAL OF LICENCE - *Concluded*

8. Waste Deposited (quantity, quality, treatment and disposal)

Drilling Waste Disposal

Petro-Canada has incorporated techniques into the drilling process designed to minimize the volume of waste. Centrifuges are used to help use the mud systems for longer periods of time, and a mud cooler is used to help minimize hole size and reduce the volume of the active mud system.

The winter drilling location(s) will use a sump (very similar to M-15), excavated into the ground by small explosive charges, to a dimension of 20 m wide x 50 m long x 5 m deep. The spoil pile will be placed around the perimeter of the sump, consisting of approximately 5000 cubic meters of displaced material. The intent is not to completely fill the 5000 cubic meter sump with fluids, but to fill less than one quarter of it (1250 cubic meters which meets anticipated sump usage). This allows Petro-Canada the ability to minimize environmental impact upon completion of the sumps useful life by employing a mix/bury/cover strategy to sump abandonment. Please refer to the attached project description for additional information.

Wastewater Disposal

It is Petro-Canada's intent to treat all wastewater to a level that it is safe for discharge to the ground surface. Wastewater from the rig camp will be treated using an Eco-Tech treatment system. The Eco-Tech system was also used last year, however, learnings from last year were used to make improvements such as an added primary holding tank, an added grease trap, as well as other adjustments to the waste treatment system.

As an operational alternative to treatment and discharge of wastewater to the land surface, a sump would be used. A 12 m x 20 m sump, 5 m deep with a 10 m perimeter for spoil pile would be utilized.

9. Other Persons or Properties Affected By This Undertaking (give name, mailing address and location; attach list if necessary)

N/A

10. Predicted Environmental Impacts of Undertaking and Proposed Mitigation

See Project Description (Section 12)

11. Contractor and Sub-Contractors (names, addresses and functions)
Inuvialuit Environmental & Geotechnical (IEG) (Environmental Consultant)
1338R - 36th Avenue N.E.
Calgary, AB T2E 6T6

Akita-Equtak Drilling
P.O. Box 2637
Suite 104, 107 Mackenzie Road
Inuvik, NT X0E 0T0

12. Studies Undertaken to Date (attach list if necessary)

IEG (formerly Inuvialuit Environmental Inc.) prepared a previous environmental assessment for Petro-Canada's Mackenzie Delta Kurk and Kugpik Winter 2000/2001 Seismic Program, and the Petro-Canada Mackenzie Delta Winter 2000/2001 Napartok Seismic Program. These Project Descriptions are on file with the EISC and NEB. Several assessments written for past developments within the vicinity of the project area were previously approved, and a number of environmental assessments for proposed projects within the vicinity of the project area will be submitted for approval.


13. Proposed Time Schedule

Project Activity	Estimated Time Frame
Planning	
Ongoing	
Ice Access and Lease Construction	November 2001 – January 2002
Mobilization to Kurk	January 2002
Camp Set-up	January 2002
Well Drilling (Kurk)	January – February 2002
Move to Napartok	February 2002
Well Drilling and Possible Testing	February – March 2002
Move to Summer Location	April 2002
Final Clean-up	Dependant upon ice conditions.

* Time lines given in the above table are approximate and subject to change depending upon variables such as weather or ice thickness on proposed routes of travel.

Start date November, 2001Completion date April, 2002

JOHN P. KERKHOVEN
 SUPERVISOR, SURFACE LAND
 AND COMMUNITY AFFAIRS
 WESTERN CANADA EXPLORATION
 AND OPERATIONS

 Sept 4/01
 SIGNATURE DATE

FOR OFFICE USE ONLY

APPLICATION FEE	Amount: \$ <u>30.00</u>	Receipt No.: _____
WATER USE DEPOSIT	Amount: \$ _____	Receipt No.: _____