

devon

Devon Canada Corporation
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October 10, 2002

Northwest Territories Water Board
PO Box 1500
2nd Floor Goga Cho Building
Yellowknife, NWT
X1A 2R3

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| W. RES. | 0216 |
| File- | 1777 |

Attention: Mr. Gordon Wray - Chairman NWT Water Board

Re: Amendment - Water License # N7L1-1777

Dear Mr. Wray,

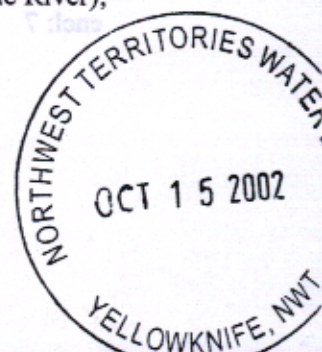
Devon is seeking to amend NWT Water License # N7L1-1777. This water license was initially issued to Petro-Canada on November 30, 2001. Petro-Canada is aware of, and supports the current amendment sought by Devon. A letter indicating Petro-Canada's support is attached for your review.

Devon and Petro-Canada operate in the Mackenzie Delta in accordance with a joint venture agreement. Although Petro-Canada initiated the assessment and permitting process for the Napartok F29 and N03 locations in 2001, Devon intends to complete this process and operate the drilling program on behalf of the joint venture.

Petro-Canada initially presented the Napartok Drilling Program to the Environmental Impact Screening Committee (EISC) in the fall of 2001. The project was a two-well drilling program. Two of these locations (F29 and N03) remain significant prospects for Devon and Petro-Canada. The project was screened and, in September 2001 the EISC determined that the development would have no significant negative impact on the environment and further licensing and permitting could proceed. As previously mentioned, NWT Water License # N7L1-1777 was issued on November 30, 2001.

Devon is seeking to amend this Water License with the following changes:

- an extension of the License until May 2004 (current expiration is Dec 31, 2002);
- altering the applicable parameters for sewage discharge (discharge parameters to be in accordance with flow rates calculated for appropriate channels of the Mackenzie River);
- increasing the daily water usage from 1,000 m³ to 1,500 m³; and
- re-assigning the license from Petro-Canada to Devon.



In an effort to facilitate this amendment the following information is attached:

- a completed Schedule III - *Application for License, Amendment of License or Renewal of License*;
- a Napartok Drilling Program Winter 2002-2003 project map;
- survey plans (2) for the proposed locations (F29 & N03);
- Petro-Canada correspondence provided to Devon indicating support for the Water License Amendment;
- a schematic of the water treatment system; and
- a \$30 cheque for the amendment.

Devon has recently completed community and regulatory consultations to ensure all relevant stakeholders are aware of Devon's plans for drilling the Napartok locations. Community and regulator meetings were completed in Inuvik on September 25 and 26, and in Tuktoyaktuk on September 26. Meetings in Aklavik were completed on October 8, 2002.

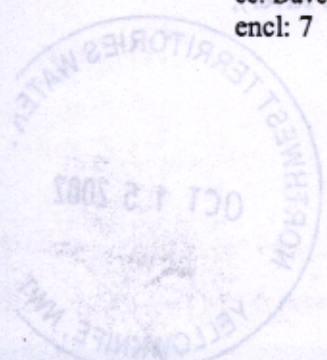
The following regulatory agencies have been informed about Devon's plans for the Napartok Drilling Program:

- the Environmental Impact Screening Committee,
- Indian and Northern Affairs Canada, Water Resources Division (Yellowknife),
- Indian and Northern Affairs Canada, North Mackenzie District (Inuvik),
- the National Energy Board, and
- Fisheries and Oceans Canada

We trust that the enclosed information will be sufficient to allow the NWT Water Board to make the proposed amendment to NWT Water License # N7L1-1777. If additional information is required, or if there are concerns with the enclosed information, please contact me as soon as possible.

Sincerely,


Peter Millman
Environmental Planner
Devon Canada Corporation
Ph: (403) 232-7294
Fax (403) 232-7211
Email: peter.millman@devoncanada.com
cc: Dave Milburn-INAC, Bill Livingstone - Devon
encl: 7



Schedule III
(Subsection 6(1))

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

APPLICATION/LICENCE NO:
N7L1-1777

1. Name and Mailing Address of Applicant

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1600 324-8th Ave. SW
Calgary, AB T2P 2Z5
Email: peter.millman@devoncanada.com
Telephone: (403) 232-7294

Fax: (403) 232-7211

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)

Devon is currently finalising plans for the Napartok Winter Drilling Program 2002-2003. The locations (F29 and N03) were previously identified by Petro-Canada and presented to the Environmental Impact Screening Committee (EISC) in September 2001. The EISC determined that the development would have no significant negative impact on the environment and that further licensing and permitting could proceed. The NWT Water Board issued a water license (N7L1-1777) to Petro-Canada on 1 December 2001.

Devon and Petro-Canada operate in the Mackenzie Delta in accordance with a joint venture agreement between the two companies. Although Petro-Canada initiated the assessment and permitting process for these locations in 2001, Devon is seeking to complete this process and operate the drilling program at F29 and N03 on behalf of the joint venture partners. Devon is seeking to extend the term of the license, amend the process for the discharge of wastewater and increase the total water requirements for the program.

The drilling locations will be those that were presented to the EISC in September 2001. Although F29 is the primary drilling target for this year, there is the potential that if F29 is successful Devon would also proceed with drilling the N03 location this winter. Alternatively, Devon could drill only the F29 location this year and drill the N03 location in the winter of 2004. Devon believes that drilling the F29 and the N03 wells within the same season, or in separate seasons, are both within the scope of the original program proposed by Petro-Canada.

The locations are approximately 47 km from Inuvik and 30 km from Aklavik. Devon completed community consultation for its proposed winter programs from September 23rd – 25th, 2002. A discussion and presentation of the updated Napartok program was a part of that process.

In preparation for winter drilling Devon is moving equipment and materials from Tuktoyaktuk. Movement of this equipment began on September 5th and included consumables (drilling muds, casing, etc.), as well as equipment (drilling rig, camp, vehicles). Materials and equipment will be moved to three locations (Swimming Point, Inuvik and to a barge located near Napartok F29). Material and equipment will be staged close to the Napartok F29 location to allow for easy access when construction begins later in the year. Survey plans for the proposed locations are attached, along with a map indicating the well-site locations.

| Well Reference* | Latitude | Longitude |
|-----------------|---------------|----------------|
| F-29 | 68° 28' 19" N | 134° 36' 24" W |
| N-03 | 68° 32' 59" N | 134° 31' 24" W |

* The final wellsite locations may differ from the conceptual locations identified, but will be located within a 1000 m radius, as described in the *Project Description for the Proposed Petro-Canada Kurk/Napartok Winter 2001/2002 Drilling Program*.

4. Description of Undertaking (describe and attach plans)

The drilling operation will be undertaken as described in the *Project Description for the Proposed Petro-Canada Kurk/Napartok Winter 2001/2002 Drilling Program*. The project description was submitted to the NWT Water Board, in support of a water licence application, which was issued as N7L1-1777 in December 2001. Proposed amendments to the undertaking relate to wastewater discharge and water volume requirements. Devon is also seeking to extend the term of the license and to become the license holder and operator on the program.

SCHEDULE III – Continued

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

5. Type of Undertaking

1. Industrial X
 2. Mining and milling
 3. Municipal X
 8. Miscellaneous

4. Power
 5. Agriculture

6. Conservation
 7. Recreation

6. Water Use

- To obtain water X
 To cross a watercourse
 To modify the bed or bank of a watercourse

- Flood Control
 To divert water
 To alter the flow of, or store, water

Other (describe)

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

The total water volume needed to complete both the F29 and N03 wells will require an increase in daily withdrawal volumes from 1000 m³/day, as allowed under N7L1-1777, to approximately 1500 m³/day. The increased volume will allow construction at N03 to occur, while drilling is being completed at F29.

Water usage requirements for the program are based on needs for well site and access construction, during drilling operations, and for camp water uses. Water usage requirements for this program are also based upon learnings from Petro Canada's M-15 drilling operation. The construction phase may at times require large volumes of water for flooding ice roads and ice pads, with anticipated withdrawal volumes of 1000m³ per day. 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 may infrequently spike as high as 250m³ in one day. The rig camp use is fairly uniform at less than 50m³ per day.

| Activity | Volume |
|----------------------------------|---|
| Wellsite and Access Construction | Up to 1000 m ³ /day |
| Drilling mud | <50 m ³ /day – 250 m ³ /day |
| Camp requirements | < 50 m ³ /day |

Note: Camp water usage is based on maximum occupancy at the camp. This number is an overestimate.

Methods for water withdrawal will be as described in the *Project Description for the Proposed Petro-Canada Kurk/Napartok Winter 2001/2002 Drilling Program*. Water will be withdrawn from the river that the access is located on, or where the access last meets the river for land construction. Water required for drilling operations and camp uses will be drawn from a nearby channel. To ensure that fish are not negatively affected during water withdrawal, intake hoses will be equipped with screens in compliance with DFO Freshwater Intake End of Pipe Fish Screen Guideline (1995) to prevent the impingement or entrainment of fish.

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

As described in the *Project Description for the Proposed Petro-Canada Kurk/Napartok Winter 2001/2002 Drilling Program*, Devon has also incorporated techniques into the drilling process 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. Devon will deposit drilling waste in a sump, as described in the Petro-Canada project description.

Devon would like to amend N7L1-1777 to allow treated wastewater from the camp's EcoTech system to be deposited to the river channel nearest the well site, rather than to land, as described in the existing license. Exact locations will be determined when the final well site has been located and in consultation with the Inspector. A schematic diagram of the new EcoTech system being constructed for this project in Inuvik is also attached.

Daily flow values have been modeled for Napoiak Channel (Station 10MC023), which is located east of F29 and southwest of N03. This is the closest metering station to the well locations and best represents channel flow in the vicinity of the proposed program. Flow values were modeled with the One-D hydrodynamic model of the Mackenzie Delta developed by Environment Canada: Atmospheric & Hydrologic Sciences Division, Arctic Section. The model was calibrated for 1982-1995 and then validated for 1996-1999. Model results are 'fairly good' for spring (+3%) and summer (-4%), but underestimates fall (-49%) and overestimates winter (-114%) flow. (As per communication from Vir Khanna of Environment Canada). To be cautious, modeled channel discharge values were therefore halved based on possible overestimation of winter discharge.

Monthly Flow Averages for Mackenzie River - Napoiak Channel,
Station 10MC023 1997 - 1999 (m³/s)
(rounded to the nearest full unit)

| Month | 1997 | 1998 | 1999 |
|-----------|------|------|------|
| January | 154 | 117 | 104 |
| February | 129 | 123 | 95 |
| March | 119 | 136 | 88 |
| April | 108 | 148 | 82* |
| May | 544 | 729 | 371 |
| June | 927 | 606 | 632 |
| July | 941 | 541 | 600 |
| August | 961 | 428 | 463 |
| September | 615 | 301 | 389 |
| October | 357 | 195 | 179 |
| November | 168 | 152 | 120 |
| December | 104 | 106 | 88 |

*Lowest monthly flow average from 1997 - 1999

To allow for overestimation of flow values during the winter season, the lowest average monthly flow value (82 m³/s) estimated by the model was divided in half to provide a very conservative estimate of flow:

$$82 \text{ m}^3/\text{s} / 2 = 41 \text{ m}^3/\text{s} \text{ and}$$

$$60 \text{ s/min} \times 60 \text{ min/hr} \times 24 \text{ hr/day} = 86400 \text{ s/day}$$

$$\text{Therefore: } 41 \text{ m}^3/\text{s} \times 86400 \text{ s/day} = 3,542,400 \text{ m}^3/\text{day}$$

Maximum expected wastewater discharge from the camp is expected to be 50 m³/day.

$$\text{The dilution factor would equal } 3,542,400 \text{ m}^3/\text{day} / 50 \text{ m}^3/\text{day} = 70848:1.$$

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

The amendments proposed are not expected to cause environmental impacts, beyond those described in the *Project Description for the Proposed Petro-Canada Kurk/Napartok Winter 2001/2002 Drilling Program*.

11. Contractor and Sub-Contractors (names, addresses and functions)

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

Devon has contributed to the following projects, applicable to this region:

IEG. 2002a. Vegetation Classification and Wildlife Habitat Suitability Modeling in the Mackenzie Delta Region. Prepared for the Operators and the Wildlife Management Advisory Council in the Mackenzie Delta Region, NWT.

IEG. 2002b. Heritage Resource Survey – Mackenzie Delta: Summary Report. Prepared for the Operators in the Mackenzie Delta Region.

13. Proposed Time Schedule

| | |
|-----------------------------|---|
| F29 | |
| Access & Lease Construction | Nov. 17, 2002- Jan 27, 2003 (includes DOT Ice Road) |
| Drilling | February 3 – February 23, 2003 |
| Well Test | February 25 – March 9, 2003 |
| Demobilisation & Clean-up | March 9 – March 16, 2003 |
| N03 | |
| Access & Lease Construction | Feb 23 – March 10, 2003 |
| Drilling | March 16 – March 27, 2003 |
| Well Test | March 28 – April 8, 2003 |
| Demobilisation & Clean-up | April 9 – April 15, 2003 |

The proposed schedule may be modified slightly depending on weather and other environmental conditions. If N03 is not drilled in the spring of 2003, it will be drilled during the winter of 2003/04 and follow a time schedule similar to that proposed for F29.

Start date December 2002 Completion date December 2004

Pete Millman Environmental Planner [Signature] October 10, 2002
 NAME TITLE SIGNATURE DATE

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