



OIL & GAS COMMISSION

April 7, 1999

OGC 990269

File:2400-4805-59240-09

CNRL PILOT PROJECT (12)

Mr. Dick VanAppelen, P.Eng.
Exploitation Engineer
Canadian Natural Resources Limited
2000, 425 - 1st Street SW
CALGARY AB T2P 3L8

Dear Mr. VanAppelen:

RE: APPLICATION TO AMEND PILOT PRESSURE MAINTENANCE
BUICK CREEK LOWER HALFWAY "B" POOL

The Commission has reviewed your application dated February 18, 1999 wherein you requested an amendment to the pilot pressure maintenance scheme approval in the subject oil pool. In the application you requested approval to convert one additional well for use as a water injector.

Attached is Approval 98-09-001 (Amendment #2) for the application, granted under section 100 of the Petroleum and Natural Gas Act.

Please note that the new water injection well b-76-I/94-A-11 (bottom hole location b-67-I/94-A-11), WA 10803; is completed in the Buick Creek Lower Halfway "B" and "C" pools. Therefore, water injected into the well should be allocated on the Ministry of Energy and Mines BC S-18 form at 50% to the "B" pool and 50% to the "C" pool.

Yours sincerely,

[Handwritten signature]

B van Oort, P. Eng.
Director
Engineering and Geology Branch

Attachment

Approval Letters to Industry
GEP, SWD, CONCURRENT PROD,
PRESSURE MAINTENANCE,
WATERFLOOD, ETC.

Copy

- Wellfile (originals)
59240
Daily
Resource Revenue
R. Stefik
G. Farr
P. Attariwala
D. Krezanoski
S. Chicorelli

**APPROVAL 98-09-001 (AMENDMENT #2)**

**THE PROVINCE OF BRITISH COLUMBIA  
PETROLEUM AND NATURAL GAS ACT  
OIL AND GAS COMMISSION**

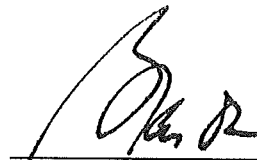
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IN THE MATTER of a pilot pressure maintenance scheme of Canadian Natural Resources Limited (CNRL) for waterflood recovery of oil by water injection into the Buick Creek Lower Halfway "B" Pool.

The approval granted pursuant to section 100 of the Petroleum and Natural Gas Act, R.S.B.C. 1996, c.361 by the Ministry of Employment and Investment (Ministry) on January 19, 1998 is hereby amended as follows:

The pilot pressure maintenance scheme of CNRL for waterflood recovery of oil from the Buick Creek Lower Halfway "B" Pool as such scheme is described in the Application from CNRL dated December 5, 1997, October 21, 1998 and February 18, 1999 is hereby amended, subject to the terms herein contained.

1. The pilot pressure maintenance scheme area shall be delineated by units 57, 58, 67 and 68 of Block I/94-A-11.
2. The daily oil allowable is waived.
3. Water may be injected into the Buick Creek Lower Halfway "B" Pool through the wells c-57-I, d-A57-I, d-58-I and b-76-I/94-A-11.
4. Only 50% of water injection into well b-76-I/94-A-11 (bottom hole location b-67-I/94-A-11), WA 10803; will be allocated to the Buick Creek Lower Halfway "B" pool.
5. The injection pressure at the sandface must not exceed the formation fracture pressure.
6. Progress reports shall be filed as stipulated in section 8 of the *Petroleum and Natural Gas General Regulation*.
7. The operations of the pilot pressure maintenance scheme will be subject to periodic review, and modification to the approval may be ordered, if deemed appropriate.



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Bou van Oort, P. Eng.  
Director  
Engineering and Geology Branch  
Oil and Gas Commission

DATED AT the City of Victoria, in the Province of British Columbia, this 7<sup>th</sup> day of April, 1999.