



OIL & GAS COMMISSION

June 22, 1999

OGC 990383
File: 2400-4805-59240-09

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

CNRL Pilot Project (15)

Dear Mr. VanAppelen:

**RE: APPLICATION TO AMEND PILOT WATERFLOOD PRESSURE MAINTENANCE
BUICK CREEK LOWER HALFWAY "C" OIL POOL**

The Commission has reviewed your application dated June 1, 1999 wherein you requested an amendment to the pilot waterflood pressure maintenance approval in the subject pool. In the application you requested approval to convert an additional well as a water injector.

Attached is Approval # 99-09-002 (Amendment #1) for the application, granted under section 100 of the Petroleum and Natural Gas Act.

Yours sincerely,

Bou 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

- Email
- D. Krezanowski
 - S. Chicorelli
 - C. Gibson

APPROVAL 99-09-002 (AMENDMENT #1)

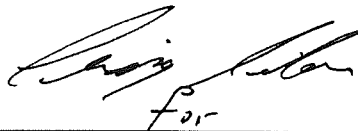
THE PROVINCE OF BRITISH COLUMBIA
PETROLEUM AND NATURAL GAS ACT
OIL AND GAS COMMISSION

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 "C" Pool.

The approval granted by the Commission, pursuant to Section 100 of the Petroleum and Natural Gas Act, R.S.B.C. 1996, c.361 is hereby amended as follows:

The pilot pressure maintenance scheme of CNRL for waterflood recovery of oil from the Buick Creek Lower Halfway "C" Pool as described in the application from CNRL to the Commission dated March 2, 1999 and June 1, 1999 is hereby amended, subject to the following terms:

1. The pilot pressure maintenance scheme area shall be delineated by units 66, 67, 76, 77, 86, 87, 94 - 97 in Block I/94-A-11 and units 4 - 7 of Block A/94-A-14.
2. The daily oil allowable is waived.
3. Water may be injected into the Lower Halfway "C" pool through the wells b-5-A/94-A-14 (bottom hole location d-97-I/94-A-11), WA 9370; a-6-A/94-A-14 (bottom hole location c-94-I/94-A-11), WA 9411; b-76-I/94-A-11 (bottom hole location b-67-I/94-A-11), WA 10803 and d-86-I/94-A-11, WA 7200.
4. Only 50 % of water injection into well b-76-I/94-A-11, WA 10803; will be allocated to the Buick Creek Lower Halfway "C" pool.
5. The injection pressure measured at the sandface must not exceed the formation fracture pressure.
6. All associated gas production will be conserved.
7. The Commission must be notified in writing of the date of commencement of water injection.
8. Progress reports shall be filed as stipulated in Section 8 of the *Petroleum and Natural Gas General Regulation*.
9. 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.


for

Bou van Oort
Director
Engineering and Geology Branch

DATED AT the City of Victoria, in the Province of British Columbia, this 22 day of June, 1999.