



October 21, 2003

0760-4800-59240-09
OGC - 03281

Wayne Kennedy, P.Eng.
Exploitation Engineer
Canadian Natural Resources Limited
2500, 855 - 2 Street S.W.
CALGARY, AB T2P 4J8

Dear Mr. Kennedy:

**RE: WATERFLOOD PRESSURE MAINTENANCE APPROVAL, AMENDMENT #2
BEAVERTAIL HALFWAY "B" POOL**

The Commission has recently revised its geological interpretation of the subject pool, necessitating an amendment to the waterflood pressure maintenance scheme approval issued to Canadian Natural Resources Limited on July 24, 1997, and amended August 9, 2002.

Attached is Approval #97-09-003 (Amendment #2), granted under section 100 of the Petroleum and Natural Gas Act.

The unsuccessful attempt to inject water into the well d-69-A/94-A-15 (WA 6199), and reservoir pressure survey data, have resulted in this well being mapped as the separate single well Halfway "K" pool. Therefore, the well d-69-A has been removed from condition #3, approved injection wells, and units 59 and 69-A/94-A-15 are no longer included within the approval area. All other conditions of approval remain unchanged.

Should you have any questions, please contact Peter Attariwala at (250) 952-0311 or Ron Stefik at 952-0310.

Sincerely,

Craig Gibson, P. Eng.
Director
Resource Conservation Branch

Attachment

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

Copy 10

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

RESOURCE CONSERVATION BRANCH

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APPROVAL 97-09-003 (AMENDMENT #2)

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

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

NOW THEREFORE, the Commission, pursuant to section 100 of the Petroleum and Natural Gas Act, R.S.B.C.1996, c.361 orders as follows.

The pressure maintenance scheme of CNRL for waterflood recovery of oil from the Beavertail Halfway "B" pool as described in the Application from CNRL dated June 6, 1996 and August 2, 2002 is hereby amended, subject to the following terms:

1. The project area of the pressure maintenance scheme consists of units 58, 68, 78 - 80 and 88 - 90 Block A/94-A-15.
2. The project oil production allowable is 90 m³/d.
3. Water may be injected into wells d-58-A and d-79-A/94-A-15.
4. The injection pressure at the sandface must not exceed the formation fracture pressure.
5. All associated gas production must be conserved.
6. An oil well may be drilled anywhere within the project area provided that it is not completed within 100 m of the boundary of the project area.
7. Progress reports shall be filed as stipulated in Section 8 of the *Petroleum and Natural Gas General Regulation*.
8. The operations of the pressure maintenance scheme are subject to periodic review, and modification to the approval may be ordered, if deemed appropriate.



Craig Gibson
Director
Resource Conservation Branch

DATED AT the City of Victoria, in the Province of British Columbia, this 21st day of October 2003.