

November 27, 1996

961210 0760-4800-59240-09

CNRL PROT (05)

Ms. Cassandra Lai Exploitation Engineer Canadian Natural Resources Limited 2000, 425 - 1st Street SW Calgary, AB T2P 3L8

Dear Ms. Lai:

Re: Application For Pressure Maintenance Approval

Beavertail Halfway "H" Pool

This refers to your application dated November 20, 1996 wherein you requested an amendment to the waterflood pressure maintenance scheme approval for the Beavertail Halfway "H" oil pool.

Attached is Approval 96-09-004 (AMENDMENT #1) for the application granted under section 116 of the *Petroleum and Natural Gas Act*.

The only change from the conditions of the original approval is the location of the water injection well, now at c-40-A/94-A-15.

Yours sincerely,

Lov. Bou van Oort

Director

Engineering and Operations Branch

Attachment

Copies for Approval Letters to Industry (10)

D.L. Johnson

Resource Revenue

P.S. Attariwala

√R.G. Stefik

G. Farr

D. Richardson

S. Chicorelli

Daily

Well File

59070-04

## APPROVAL 96-09-004 (AMENDMENT #1)

## THE PROVINCE OF BRITISH COLUMBIA PETROLEUM AND NATURAL GAS ACT MINISTRY OF EMPLOYMENT AND INVESTMENT ENERGY AND MINERALS DIVISION

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 "H" Pool.

The Minister of Employment and Investment, pursuant to section 116 of the Petroleum and Natural Gas Act, hereby orders as follows:

- 1. The pressure maintenance scheme of CNRL for waterflood recovery of oil from the Beavertail Halfway "H" Pool as such scheme is described in the Applications from CNRL to the Ministry dated January 15, May 27, and November 20, 1996 is hereby approved, subject to the terms herein contained.
- 2. The pressure maintenance scheme area shall be delineated by units 38-40, 48-50, 60 and 70 of Block A/94-A-15 and units 31, 41, 51 and 61 of Block B/94-A-15.
- 3. The reserves based project oil allowable is 108 m<sup>3</sup>/d.
- 4. Water may be injected into the Beavertail Halfway "H" Pool through the well c-40-A/94-A-15.

- March 7/97 5. The scheme shall be deemed to have commenced upon water being injected into the well referred to in clause 4 with the Division to the well referred to in clause 4 with the Division to the well referred to date of commencement.
  - 6. The well head injection pressure must not exceed the formation fracture pressure.
  - 7. All associated gas production will be conserved.
  - 8. An oil well may be drilled anywhere within the project area provided that it is not nearer than 100 m to the sides of the project area.
  - 9. Progress reports shall be filed as stipulated in Part 9, section 108 of the British Columbia Drilling and Production Regulation.
  - 10. The operations of the pressure maintenance scheme will be subject to periodic review and modification to the approval may be ordered, if deemed appropriate.

**Engineering and Operations Branch** 

DATED AT the City of Victoria, in the Province of British Columbia, this 27 day of November, 1996.