

January 18, 2010

6800-4800-59240-09

Festus Fariyibi Exploitation Engineer Canadian Natural Resources Limited 2500, 855 – 2<sup>nd</sup> Street SW Calgary, AB T2P 4J8

Dear Mr. Fariyibi:

## RE: PRESSURE MAINTENANCE WATER FLOOD APPROVAL, AMENDMENT #7 PEEJAY - HALFWAY UNIT #2

Commission staff have reviewed your application, dated November 25, 2009, requesting modification of the pressure maintenance waterflood scheme in Peejay field Halfway Unit #2, converting two wells to water injector service.

Attached is Approval # 66-09-001 (Amendment #7) for Unit #2. This amendment incorporates revised water injection locations for improved waterflood sweep. Both proposed injection wells, b-58-C (WA# 7493) and a-79-C/94-A-16 (WA# 9433) were suspended as producers in late 2004 upon reaching marginal oil rates and high GOR.

The subject Approval is independent of the Unitization Agreement. Therefore, the Pressure Maintenance Water Flood Approval area is expanded to include non-Unit location of unit 58-C/94-A-16, the spacing area of one of the new injection wells.

The Commission is encouraged that efforts continue to improve oil recovery from this advanced life pool.

Please note that the form BC-11 "Notification of Commencement or Suspension of Operations" must be submitted to the BC Ministry of Finance to notify of conversion of a well to injection service. As well, the form BC-S18 "Monthly Injection/Disposal Statement" must be maintained for each active injection well.

Should you have any questions, please contact Ron Stefik at (250) 419-4430.

Sincerely,

for Richard Slocomb, P.Eng. Supervisor, Reservoir Engineering Resource Conservation

Attachment

Resource Conservation 300 – 398 Harbour Rd. Victoria BC V9A 0B7

www.ogc.gov.bc.ca

## APPROVAL 66-09-001 (AMENDMENT #7)

## THE PROVINCE OF BRITISH COLUMBIA <u>PETROLEUM AND NATURAL GAS ACT</u> 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 Peejay Halfway Unit #2.

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

The pressure maintenance scheme of CNRL for waterflood recovery of oil from the Peejay Halfway Unit #2 as described in the application dated September 26, 1966 and last modified on February 13, 2003 (Amendment #6) is hereby amended, subject to the terms herein contained:

1. The area of the pressure maintenance scheme consists of:

94-A-16: Block C: units 58, 59, 60, 68-70, 78-80, 88-90, 98-100 Block D: units 62, 63, 71-73, 81-83, 91-93 Block E: units 1-3, 11-13, 22-26, 33-35, 43, 45, 46 Block F: units 9 and 10.

- 2. The project daily oil allowable, being the sum of the individual well allowables, is 1307.7 m<sup>3</sup>.
- Water may be injected into the Peejay Unit #2 and non-Unit through the wells located at b-58-C, d-59-C, b-68-C, d-70-C, a-79-C, d-99-C, d-100-C, d-71-D, d-72-D, d-82-D, d-83-D, d-12-E, d-13-E, d-25-E and d-35-E/94-A-16.
- 4. The injection pressure measured at the sandface must not exceed the formation fracture pressure.
- 5. All associated gas will be conserved.
- 6. 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.
- 7. The operations of the pressure maintenance scheme will be subject to periodic review and modification to the approval may be ordered, if deemed appropriate.

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Richard Slocomb Supervisor, Reservoir Engineering Resource Conservation

DATED AT the City of Victoria, in the Province of British Columbia, this 18th day of January 2010.

for