

March 2, 2011

7000-4800-59240-09

Sean Pell  
Exploitation Engineer  
Canadian Natural Resources Ltd.  
2500, 855 – 2<sup>nd</sup> Street S.W.  
CALGARY, AB T2P 4J8

Dear Mr. Pell:

**RE: PRESSURE MAINTENANCE WATERFLOOD ORDER, AMENDMENT #3  
OTHER THAN NORMAL SPACING ORDER, AMENDMENT #3  
PEEJAY WEST – HALFWAY “A” POOL**

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The Commission has reviewed your application dated, February 7, 2011, requesting an amendment to the pressure maintenance waterflood order previously granted for the Peejay West - Halfway “A” oil pool, specifically converting the CNRL W Peejay b-43-G/94-A-15 (WA #8394) to water injection service.

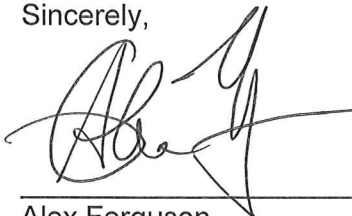
As a result of recent legislative changes, the previous single approval document for this activity has transitioned to the attached Orders 96-09-007 (Amendment #3) and 96-09-007-OTN (Amendment #3); designating pressure maintenance within the Peejay West – Halfway “A” pool a Special Project under section 75 of the *Oil and Gas Activities Act* and approving an Other Than Normal Spacing order under section 65.1 of the *Petroleum and Natural Gas Act* for the subject area. These amendments incorporate an additional water injection well, CNRL W PEEJAY b-043-G/94-A-15 (WA# 8394), for improved waterflood sweep efficiency.

Please note that the operation of the pressure maintenance scheme will be subject to periodic review and the Commission may modify the Orders, if deemed appropriate.

Also, the OGC would like to remind CNRL that as per condition 2e) of the attached approval, annual Progress Reports are required to be submitted.

Should you have any questions, please contact Richard Slocomb at (250) 419-4421 or Travis Mercure at (250) 419-4448.

Sincerely,



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Alex Ferguson  
Commissioner  
Oil and Gas Commission

Attachment

IN THE MATTER of an application from Canadian Natural Resources Ltd. to the Commission dated February 7, 2011 for amending a Pressure Maintenance – Waterflood project.


**ORDER 96-09-007 (AMENDMENT #3)**

- 1 Under Section 75(1)(a) of the *Oil and Gas Activities Act*, the Peejay West – Halfway “A” pool is designated as a special project for pressure maintenance for recovery of oil by water injection within the following area;

94-A-15 Block G - Units 22, 23, 32, 33, 42 - 44, 53, 54, 64 and 65.

- 2 Under section 75(2) of the *Oil and Gas Activities Act*, I make the special project designation in this Order subject to the following conditions:
  - a) The oil production allowable for a month shall be based on the previous month’s voidage replacement.
  - b) Water may be injected into the Peejay West - Halfway “A” pool through the wells d-23-G, c-33-G, b-43-G, b-44-G and b-54-G/94-A-15.
  - c) All associated produced gas must be conserved.
  - d) The injection pressure measured at the sandface must not exceed the formation fracture pressure.
  - e) The permit holder must submit a progress report to the Commission for each twelve month period the scheme is in operation. The progress report must be filed within 60 days after the end of each period and must contain the following :
    - i) the daily average rate during each month of oil production for each producing well, and for the scheme as a whole
    - ii) the average gas-oil and water-oil rates during each month for each producing well, and for the scheme as a whole
    - iii) the monthly cumulative gas, oil and water production for each producing well, and for the scheme as a whole
    - iv) for each type of fluid being injected, the daily average rate of injection per operating day during each month into each injection well, and for the scheme as a whole
    - v) for each type of fluid being injected, the weighted average wellhead injection pressure during each month for each injection well, and for the scheme as a whole
    - vi) for each type of fluid being injected, the monthly cumulative volume of fluid injected to each injection well, and for the scheme as a whole
    - vii) the current volumetrically weighted formation pressure for the scheme as a whole and a copy of the isobaric map from which this pressure was calculated
    - viii) the date and type of any well treatment or workover which must be indicated, in the case of injection wells, on the report of the injected volume, and in the case of producing wells, on the report of the daily average oil production rate
    - ix) calculations of the balance during each month between fluids injected into, and fluids withdrawn from, the part of the pool subject to the scheme and by individual patterns, where applicable

- x) an outline of the method actually in use for the quality control and treatment of fluid being injected, or, where there has been no change in the control or treatment from that outlined in a previous report, a statement to that effect



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Alex Ferguson  
Commissioner  
Oil and Gas Commission

DATED AT the City of Victoria, in the Province of British Columbia, this 2 day of March 2011.