

December 12, 2019

7750-2800-32640-60

Spencer Saurette, P.Eng. Exploitation Engineer Canadian Natural Resources Limited Suite 2100, 885 – 2nd Street SW Calgary, Alberta, T2P 4J8

Dear Mr. Saurette,

RE:

OBSERVATION WELL STATUS APPROVAL CNRL SEPTIMUS G5-23-81-19 (WA# 26299) SEPTIMUS – CADOMIN

BC Oil and Gas Commission (Commission) staff have reviewed the December 5, 2019 application from Canadian Natural Resources Limited (CNRL) seeking observation well designation for CNRL Septimus G5-23-81-19 (WA# 26299).

The Drilling and Production Regulation Part 1 defines an observation well as "a well or a portion of a well designated as an observation well under section 2 (7)".

- 2 (7) An official may designate a well as an observation well if
  - (a) the well is being used to monitor reservoir pressures or to obtain other formation information, and
  - (b) the well is not used to produce from, or inject or dispose of fluids into, a formation being monitored.

The subject well was drilled in 2010 and Order 10-02-008, approval for Salt Water Disposal, was issued December 8, 2010. The well was an active disposal well until October 2018 and a cumulative volume of 36,210 m3 was injected into the well. Reservoir pressure data collected from the subject well and the offset disposal well, CNRL HZ Septimus H5-23-81-19 (WA# 35457), indicates pressure communication between the wells. CNRL is requesting observation designation for CNRL Septimus G5-23-81-19 (WA# 26299) to monitor the reservoir pressure and gain a better understanding of pressure dissipation in the Cadomin formation.

Approval of observation status is granted for CNRL Septimus G5-23-81-19 (WA# 26299), for the Cadomin formation, with the following requirement;

• conduct a reservoir pressure test annually using downhole recorders.

Please be reminded that all reservoir pressure tests conducted must be submitted to the Commission within sixty days of the date on which the pressure was measured.

Should you have any questions, please contact Kathryn Archibald at (250) 419-4406 or the undersigned at (250) 419-4430.

Sincerely,

Ron Stefik, Eng. L.

Supervisor, Reservoir Engineering

Oil and Gas Commission