

December 11, 2019

7750-4800-32640-02

Stephen Penner, P.L. (Eng)
Exploitation Engineering Technologist
Canadian Natural Resources Ltd.
Calgary, AB T2P 4J8

Dear Mr. Penner,

RE:

TEMPORARY PRODUCED WATER DISPOSAL APPROVAL, AMENDMENT #1

MAXIMUM CUMULATIVE INJECTION VOLUME LIMIT

CNRL SEPTIMUS 13-9-81-18; WA# 25459 SEPTIMUS FIELD - HALFWAY FORMATION

On December 2, 2019, the BC Oil and Gas Commission (Commission) issued a letter to Canadian Natural Resources Ltd. (CNRL) stating that the maximum cumulative injection volume approved by Order 14-02-008, Amendment #1, had been reached. At the time, Commission records indicated that a cumulative volume of 39,865 m³ had been injected into the well.

Following receipt of the December 2, 2019 letter, CNRL informed the Commission that volumetric reporting errors had been identified and that the subject well had been shut-in, with no disposal operations occurring, since November 2017. CNRL subsequently amended the volumetric reporting for the well to reflect the lack of activity. Reporting periods for February, March and September 2019 have been amended to report a shut-in activity for CNRL Septimus 13-9-81-18 (WA# 25459) and the cumulative disposal volume to date is 16,776 m³.

Disposal operations in the subject well may continue under the current approval, Order 14-02-008 Amendment #1, until a cumulative volume of 30,000 m³ is reached. Once the maximum cumulative disposal volume is reached a pressure fall-off test must be conducted immediately, as per condition 2g) of the approval. A report of seismic events is to be submitted to the Commission at the end of the temporary injection period, as per condition 2j).

A better understanding of fluid dispersion in the Halfway formation is required prior to any long term disposal occurring. The subject well may be re-evaluated by the Commission as a candidate for continuous disposal if an application for disposal is made and any further technical submissions, such as the required reservoir pressure testing and seismic report noted above, have been reviewed.

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

Sincerely,

Ron Stefik, Eng.L.

Supervisor, Reservoir Engineering

Oil and Gas Commission