

September 21, 2021

8100-4800-59240-16

Matthew Elms, P.Eng.  
Canadian Natural Resources Limited  
2100, 855 – 2<sup>nd</sup> St. S.W.  
Calgary, AB T2P 4J8

Dear Mr. Elms:

**RE: ACID GAS DISPOSAL APPROVAL 98-16-003 AMENDMENT #5  
EXTENSION OF APPROVED INJECTION PERIOD  
CNRL W STODDART 7-34-87-21 W6M; WA# 11398  
STODDART WEST FIELD – HALFWAY FORMATION**

An email request to the Commission, dated August 20, 2021 for additional use of the subject 7-34 acid gas disposal back-up well has been reviewed, with a following technical meeting on September 10, 2021. The Commission understands CNRL's need to perform a workover on the primary well CNRL HZ W Stoddart 08-29-087-21 (WA10347) approved for injection into the Stoddart West field Doig "E" pool under [Order 17-16-002 Amendment #1](#). Replacement of the annulus fluid from diesel to glycol, to improve performance reliability, may take up to 4 days.

Current approval for use of the backup well CNRL W Stoddart 07-34-087-21 (WA11398), [Order 98-16-003 Amendment #5](#) limits back-up disposal operations to 3 sessions of 48 hours, as noted in Order condition number 2(d)(i), of which 2 sessions have already been used in the current calendar year. A July 9, 2021 letter from the Commission allowed for extended use of the backup well but the workover did not require more than the allowed 48 hours. The current workover may take 2 to 4 days, possibly longer, meaning the allowed duration for backup well disposal is likely not sufficient. Therefore, the Commission agrees that the backup well 7-34 may be used for up to 96 hours for this one-time operation.

A review of the July 2020 reservoir pressure test on the 7-34 well indicates the Halfway formation is approximately 130% above initial pressure. Disposal operations into this well are limited due to the on-going elevated pressure. Therefore, please bear in mind:

- Use of back-up well 7-34 will remain for temporary use and should be phased out as the replacement well becomes reliable.
- An annual reservoir pressure test is due for the backup well, as the last test was conducted over one year ago.
- Submission of an updated phase diagram for operations at 7-34-87-21 is required.

Should the workover on 8-29 indicate that more than 96 hours will be required, please contact the OGC as soon as possible.

If you have any questions, please contact Michelle Gaucher at (250) 419-4482 or Ron Stefik at (250) 419-4430.

Sincerely,



Ron Stefik, P.L.Eng.  
Supervisor, Reservoir Engineering  
BC Oil and Gas Commission