



NWT OFFICE OF THE REGULATOR OF OIL AND GAS OPERATIONS

Office of the Regulator of Oil and Gas Operations

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Terran Bernhard
Program Engineer
Canadian Natural Resources Ltd.
SUITE 2100, 8800 – 2 ST SW
CALGARY AB T2P 4J8

March 31, 2023

Dear Terran Bernhard:

Decision: Request for Variation 6 to ACW-2019-010-CNRL-A-77-WID1964 Denied

On March 15, 2023, the Office of the Regulator of Oil and Gas Operations (OROGO) received a request from Canadian Natural Resources Ltd. (CNRL) to vary ACW-2019-010-CNRL-A-77-WID1964 variation 5 for the abandonment of the Emile Lake A-77 well (WID1964). CNRL requested a change to the Well Abandonment Program and an extension of the deadline for abandoning the well to March 31, 2024.

On March 28, 2023, OROGO received CNRL's response to Information Request No. 2 for ACW-2019-010-CNRL-A-77-WID1964. In this response, CNRL amended its request for variation to extend the deadline for abandoning the well to March 31, 2025.

This decision:

- Provides context for CNRL's request;
- Considers each of CNRL's arguments in support of its request; and
- Concludes with my decision on the request.

Context

The original abandonment deadline for the Emile Lake A-77 well was set in August 2017, after the *Well Suspension and Abandonment Guidelines and Interpretation Notes* (Guidelines) were issued in February 2017.

On August 31, 2017, OROGO issued CNRL a Notice – Assessment of Suspended Wells in which the Emile Lake A-77 well was identified as non-compliant with the Guidelines. The Notice advised CNRL that the well must be re-suspended or abandoned by August 31, 2019 (two years from the date of the Notice).

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On August 21, 2019, after several requests from CNRL to extend the abandonment deadline for Emile Lake A-77 to the winter 2023 work season were denied, I directed CNRL to submit the Well Approval application for Emile Lake A-77 by October 31, 2019, and complete the abandonment by April 1, 2021. I also confirmed that the Emile Lake A-77 well would remain non-compliant until it was abandoned to the satisfaction of the Regulator.

On October 30, 2019, CNRL applied for a Well Approval for the abandonment of the Emile Lake A-77 well. Additional information was received in February 2020 to complete the application and, on May 13, 2020, ACW-2019-010-CNRL-A-77-WID1964 was issued by the Regulator.

Since then, the deadline for abandonment of the Emile Lake A-77 well was extended twice due to recommendations from the GNWT Department of Health and Social Services related to COVID-19, resulting in a deadline of March 31, 2023.

On January 15, 2023, CNRL began the abandonment operations for Emile Lake A-77. The approved Well Abandonment Program included remedial cementing procedures to address the surface casing vent flow (SCVF).

On February 2, 2023, CNRL applied to OROGO for variation 5 to ACW-2019-010-CNRL-A-77-WID1964. CNRL proposed to change the Well Abandonment Program to include the use of a casing expander tool to address the SCVF, in addition to the remedial cementing procedures already approved. CNRL did not request an extension to the March 31, 2023, abandonment deadline for the well. This variation was approved on February 3, 2023.

CNRL completed its use of the casing expander on February 7, 2023, installed a SCVF monitoring device (vent nanny), and covered and heated the wellhead to ensure that the monitoring device would function. No further well operations were reported before March 31, 2023.

On February 17, 2023, at OROGO's request, CNRL provided the vent nanny report for the period of February 8-17, 2023, showing the SCVF had decreased but not been eliminated.

On March 1, 2023, OROGO called a meeting with CNRL to discuss its plans to address the SCVF. CNRL identified that it planned to use new technology in the summer of 2023 that can be implemented without a service rig or constructing access. OROGO advised that CNRL will need to provide details on the new technology, anticipated time frames for intervention on the wellbore, and a request for an extension to the abandonment deadline for the well for consideration of the Regulator no later than March 10, 2023.

On March 8, 2023, CNRL submitted the Well Operations Report for the Emile Lake A-77 abandonment, in which it stated that the well still had an SCVF that CNRL is monitoring and would continue to monitor into the summer of 2023.

CNRL's request to extend the abandonment deadline for Emile Lake A-77 was received on March 15, 2023. In its request, CNRL did not identify a plan to complete the abandonment of the well by the March 31, 2023, deadline if the variation to ACW-2019-010-CNRL-A-77-WID1964 was not approved.

Consideration of CNRL's arguments

In its request for an extension, CNRL summarized the results of its attempts to address the SCVF to date and provided a brief overview of two technologies it proposed to use in the future to repair the SCVF: Bio Squeeze and Interwell.

CNRL did not provide any rationale for its request for an extension beyond acknowledging that the SCVF had not been repaired and, therefore, the well had not been abandoned.

CNRL did not provide any explanation for its failure to complete the well abandonment as approved between February 7, 2023, when it completed the casing expander operations, and March 31, 2023.

CNRL also noted that the vent monitoring device on Emile Lake A-77 was no longer functioning because the vent assemblies had frozen, suggesting that the heating system intended to keep the monitoring system working had, at some point, been removed without notifying OROGO.

In its response to Information Request 2 (IR2), received on March 28, 2023, CNRL requested a further extension of the well abandonment deadline to March 31, 2025, to accommodate additional SCVF monitoring and well inspections before cutting and capping the well, as requested by OROGO in IR2.

Decision

Based on my consideration of CNRL's arguments, I find that CNRL has not made a reasonable case for delaying the abandonment of the Emile Lake A-77 well to March 31, 2025.

Therefore, CNRL's request for variation 6 to ACW-2019-010-CNRL-A-77-WID1964 is denied.

Sincerely,


Pauline de Jong
Regulator

- c. James Ireland, CNRL
- Wade Hartzel, CNRL
- Dale Duffy, CNRL