



NWT OFFICE OF THE REGULATOR OF OIL AND GAS OPERATIONS

Office of the Regulator of Oil and Gas Operations

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Jonathon Michel
Director, Aurora Campus
Aurora College
PO BOX 1008
INUVIK NT X0E 0T0

March 8, 2023

Dear Jonathon Michel:

**Information Request No. 2:
Aurora Training Well Abandonment (ACW-2023-AC-G-04-WID1915)**

On February 14, 2023, the Office of the Regulator of Oil and Gas Operations (OROGO) received a complete well approval application from Aurora College for the abandonment of the Aurora Training Well G-04 (WID1915) in the Gwich'in Settlement Area. OROGO also received Aurora College's response to Information Request No. 1 on March 6, 2023.

OROGO has reviewed the information provided by Aurora College and requires additional information to complete its review of Aurora College's OA application, as set out in the attached Information Request No. 2.

Please send your written responses and any associated correspondence to OROGO at oro.go@gov.nt.ca or through OROGO's secure file transfer site, on or before 4:00 pm on March 14, 2023. If you are unable to respond within this timeframe or have any questions, please contact OROGO at 867-767-9097 or by email at oro.go@gov.nt.ca.

Sincerely,

Pauline de Jong
Regulator

Encl. Information Request No. 2

- c Lorne Hammer, Canadian Petroleum Engineering Inc.
- Ron McCosh, Canada Petroleum Engineering Inc.

Information Request No. 2
Auroral Training Well G-04 Abandonment
ACW-2023-AC-G-04-WID1915

2.1 Requirements for Wellbore Fluid During Abandonment

Preamble:

Information Request 1.2 asked Aurora College to submit confirmation of the nature of the fluid currently in the wellbore. In its response to Information Request 1.2, received on March 6, 2023, Aurora College states that the well records show:

- The well was left full of fresh water, without corrosion inhibitors.
- The upper few meters of the well were filled with fresh water mixed with a non-freezing additive.

Aurora College states that it does not plan to circulate the well to fresh water due to a lack of available equipment.

Section 6A of the *Well Suspension and Abandonment Guidelines and Interpretation Notes* (Guidelines) states that, in abandoned wells, “the wellbore above the uppermost bridge plug must be filled with non-saline water containing no inhibitors”. The fresh water mixed with a non-freezing additive currently in the upper portion of the wellbore does not meet this requirement.

Aurora College is responsible for obtaining appropriate equipment to abandon the Aurora Training Well G-04 (WID1915) in accordance with OROGO’s requirements. OROGO has regulated over 8 years of well abandonments in the Northwest Territories and no operator has ever failed to obtain the required equipment to circulate a well over to fresh water.

Request:

Please submit:

- The records used to verify the nature of the fluid in the wellbore.
- An updated Abandonment Program that including circulating over to fresh water, as required under section 6A of the Guidelines.

2.2 Contingency Steps for Casing Repair and Other Remediation

Preamble:

Information Request 1.2 asked Aurora College to submit an updated Abandonment Program that contains contingency steps for repairing possible casing damage resulting from the use of fluid that is not corrosion-inhibiting or non-freezing during well suspension operations. Aurora College

did not provide an updated Abandonment Program in response to Information Request 1.2 on March 6, 2023.

Information Request 1.3 asked Aurora College to submit an updated Abandonment Program that contains contingency steps to be used in the event remedial cementing or other repairs are required prior to completing the well abandonment. These contingency steps were to include the use of appropriate well control equipment, in response to Aurora College's February 14, 2023, statement that it will not use well control equipment during the abandonment operations.

In its response to Information Request 1.3, received on March 6, 2023, Aurora College states:

- It does not plan to conduct remedial operations on the well.
- The equipment required to conduct remedial work is not available in the Northwest Territories.
- The time and cost associated with contracting such equipment and mobilizing it to Inuvik will delay any operations by a substantial period.

Aurora College is responsible for obtaining appropriate equipment to abandon the Aurora Training Well G-04 (WID1915) in accordance with OROGO's requirements. OROGO has regulated over 8 years of well abandonments in the Northwest Territories, many of which required remedial work. No operator has ever failed to complete required remedial work due to lack of equipment.

Aurora College has been aware of the deadline for abandonment of the Aurora Training Well G-04 since August 2017. Aurora College is responsible for allocating the funds required to abandon the well in accordance with OROGO's requirements. Aurora College is also responsible for ensuring that its applications to OROGO for this activity and responses to information requests are complete and reflect OROGO's requirements so that the operation can be completed before the March 31, 2023, deadline.

As noted in Information Request 2.1, Aurora College has confirmed that the wellbore has been filled with fresh water for the more than 20 years since the well was suspended. Therefore, the potential for damage to the casing from corrosion exists.

OROGO remains of the opinion that remedial operations may be required to either repair the casing or conduct remedial cementing. In both cases, appropriate well control equipment will be required.

Request:

Please submit an updated Abandonment Program that includes contingency steps for:

- Repairing possible casing damage resulting from the use of fresh water in the wellbore
- Conducting remedial cementing or other repairs, if required, prior to completing the wellbore abandonment.

Contingency steps must include the use of appropriate well control equipment.