BRITISH COLUMBIA ENERGY REGULATOR

June 10, 2025 Enforcement File: 2022-0032

AQT Water Management Inc.
102A, 11039-78 Avenue
Grande Prairie, Alberta T8W 2J7

Attention: Tom Johnston

Re: General Order 2022-0032-01

Dear Mr. Johnston,

On April 8, 2022, the BC Oil and Gas Commission, now the BC Energy Regulator, issued General Order 2022-0032-01 to AQT Water Management Inc (AQT).

Please be advised that pursuant to section 49(8) of the *Energy Resource Activities Act*, General Order 2022-0032-01 is hereby terminated.

If you have any questions or concerns, please do not hesitate to contact the BC Energy Regulator.

Sincerely,

R. A. Workman

Robert Workman
Manager, Enforcement
BC Energy Regulator

GENERAL ORDER 2022-0032-01
Section 49 *Oil and Gas Activities Act*

Issued to:

AQT Water Management Inc.
700-1816 Crowchild Trail NW
Calgary, Alberta T2M 3Y7

Attention: Mr. Tom Johnston

Order:

Pursuant to section 49(1)(d) and 49(1)(e)(ii) of the *Oil and Gas Activities Act* (the Act), I, Dax Bourke, order that AQT Water Management Inc. (AQT) must:

1. On or before July 31, 2022, complete the preliminary groundwater assessment as per the proposal approved submitted by AQT in accordance with General Order 2019-007, as amended, and as approved by the Commission.

2. On or before August 31, 2022, submit a preliminary groundwater assessment report (as described in Appendix A) to the Commission.

Conditions:

A. This order shall remain in effect until amended or terminated in whole or in part by the BC Oil and Gas Commission (Commission).

Reasons:

I make this order for the following reasons:

1. AQT is the permit holder of the Subject Well.

2. AQT is the holder of an approval for produced water and non-hazardous waste disposal into the Cadomin formation of the Subject Well issued by the Commission pursuant to section 75 of the Act under Special Project Order 16-02-002, as subsequently amended (Special Project Approval Order).

3. In May 2019, AQT experienced a lack of hydraulic isolation at the Subject Well. In consultation with Commission engineering staff, Commission hydrogeology staff were of the view that the lack of hydraulic isolation inside and outside the wellbore may have resulted in produced water entering the usable groundwater zone.

4. The base of usable groundwater at the site has been estimated by Commission geology staff to be at a depth of approximately 315 to 341 metres below Kelly bushing (mKB). The loss of integrity has been confirmed to include the outer well barrier and Commission analysis of available data indicates potential depths for fluids to enter the usable groundwater zone between 170-170.5 mKB and at 300 mKB.

5. Spills at surface due to fluid leakage through the SCV also occurred. A shallow groundwater monitoring program (<10m depth) has been in place at the site since 2016 as a condition of the Special Project Approval Order.

6. The Commission issued General Order 2019-007 on July 12, 2019 which was subsequently amended on August 22, 2019. General Order 2019-007, as amended, required AQT to, amongst other requirements, submit a preliminary groundwater assessment plan for Commission review and approval and employ a qualified professional with expertise in hydrogeology to conduct the preliminary groundwater assessment as per the proposal approved by the Commission and submit a preliminary groundwater assessment report to the Commission.

7. The Commission is of the view that a groundwater assessment program will provide information with respect to whether produced water entered the usable groundwater zone and if further action is required to contain/address any contamination.

8. On August 9, 2019, AQT requested a review of General Order 2019-007 pursuant to section 70 of the Act. On August 20, 2020, the Review Official appointed by the Commission confirmed the requirements of General Order 2019-007 with the exception of adjusting the compliance dates set out in the Order.

9. On June 24, 2021 the Commission received a document entitled 18-49002_AQTWM 11-12_ Assessment Proposal_FollowUp_210621 from AQT prepared by Baseline Water Resource Inc. (the Proposal Plan).

10. The Proposal Plan was submitted by AQT to satisfy the requirements of General Order 2019-007 to submit a preliminary groundwater assessment plan for Commission review and approval. On August 10, 2021, the Commission communicated with AQT that the Commission approved the Proposal Plan.

11. The Proposal Plan identified the following timelines: the completion of a 2021 Annual Shallow Groundwater Monitoring report by July/August 2021; installation of two monitoring wells to be completed by July/August 2021; domestic well sampling if required pending groundwater monitoring well installation results; and preliminary groundwater assessment report (domestic well samplings results, monitoring well installation and 2021 Annual Shallow Groundwater Monitoring Report by December 2021.

12. On February 17,2022 the Commission enquired on the progress of completion of the requirements of the Proposal Plan. On February 22, 2022, AQT responded that other than the procurement of piping they have yet to proceed with any of the requirements of the Proposal Plan.

13. The Commission has not received the Monitoring Report as outlined in the Proposal Plan.

14. AQT did not provide any timeline for completion of the Proposal Plan and indicated that they did not have approved funding to proceed.

15. The Commission is of the opinion that AQT has failed to comply with the requirements of a previous order issued under the Act, namely GO 2019-007.

16. On April 8, 2022, the Commission terminated GO 2019-007.

17. Completion of groundwater assessment program, as set out in the Proposal Plan previously approved by the Commission, is necessary to provide information with respect to whether produced water entered the usable groundwater zone and if further action is required to contain/address contamination.

18. I am of the opinion this order is necessary to protect the environment.

Review and Appeal

AQT may request a review of this order under section 70 of the Act by submitting a request for review to: ogc.determinationreviews@bcogc.ca.

Alternatively, AQT may appeal this order to the Oil and Gas Appeal Tribunal under section 72 of the Act. The process for appeals may be found at www.ogat.gov.bc.ca and a notice of appeal may be sent to the Oil and Gas Appeal Tribunal at:

Oil and Gas Appeal Tribunal
PO Box 4925 Stn Prov Govt
Victoria, BC V8W 9V1

Dax Bourke
Acting Executive Director, Compliance and Enforcement
BC Oil and Gas Commission

DATED AT Fort St. John, in the Province of British Columbia, this 8th day of April, 2022

Appendix A – Preliminary Groundwater Assessment Report

The submission of a preliminary groundwater assessment report to the Commission by August 31, 2022 shall include:

a. a description of the site and surrounding area

b. a desktop hydrogeological analysis of the local and regional conditions, supported with cross sections and maps

c. a summary of disposal well construction and relevant well integrity issues

d. a description of the methodologies employed for the assessment

e. details of monitoring well installation and construction, including geological conditions encountered during drilling

f. presentation of all analytical and water level monitoring results in tabular and/or graphical form as appropriate (with appended laboratory reports)

g. a discussion of the results in the context of local and regional hydrogeology, environmental impact, and risk to groundwater, and

h. recommendations for further investigation based on the results, and a proposed long term monitoring program.